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FOURTH ANNUAL REPORT

OF THE

BUREAU OF LABOR

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INDUSTRIAL STATISTICS.

TOPEKA, KANSAS, JANUARY 1, 1889.

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BUREAU OF LABOR AND INDUSTRIAL STATISTICS,
OFFICE OF COMMISSIONER, TOPEKA, KANSAS, January 1, 1889.

HON. JNO. A. MARTIN, *Governor of Kansas:*

SIR—In obedience to law, I herewith submit the Fourth Annual Report of this Bureau.

Respectfully,

FRANK H. BETTON,
Commissioner.

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NOTICE.

Recipients of this Report are respectfully requested to acknowledge the receipt of the same.

Officers of Departments, Institutions or Societies publishing official reports which may be of use to the Bureau will confer a favor by forwarding exchanges.

Editors of newspapers and periodicals publishing articles connected with the labor question, or reviews of this Report, are particularly requested to mail marked copies to this Bureau.

Employers and employés are requested to send address to this Bureau, that blank forms for reports may be furnished them. Name will not be used.

Any suggestions made to the Commissioner by persons interested in social or economic investigation, will be thankfully received and carefully considered.

Respectfully,

FRANK H. BETTON, *Commissioner*.

BUREAU OF LABOR AND INDUSTRIAL STATISTICS,
TOPEKA, KANSAS.

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PART 1.

INTRODUCTORY.

In submitting this fourth annual report I have in the main sought to follow as nearly as practicable in the same line that has governed the compilation of its predecessors, believing that radical changes in style or form should be avoided, as those who read and study these publications find it easier to follow any given subject through a series of similarly arranged pages than when frequent and extensive innovations are attempted. But as the years pass and the Commissioner becomes more familiar with his work, improvements naturally occur to his mind, and in minor details of arrangement I have not hesitated, when in my judgment changes would add to the simplification of the information sought to be imparted, to depart from the original form adopted in the earlier volumes. Believing that more accurate information could be gathered from persons working for wages, if such information could be obtained at short intervals, rather than for periods extending over an entire year, in collecting wage-working statistics for my second report, I supplemented my annual blanks with a monthly form, and succeeded in obtaining some six hundred reports from wage-workers residing in a number of the different counties of the State, showing their days employed, earnings and expenses in detail, month by month, for quite a number of months of the year. The next year the same form of blanks were used; and in our third report still more valuable results were obtained, and we were able to give analytical details regarding the averages and percentages of earnings and expenses of wage-earners in a number of the principal towns and cities of the State. During the past year we have, by a persistent system of personal visitations, month by month, gathered from most of the leading cities by far the most valuable reports we have yet been able to obtain.

In our personal visitations we were careful to solicit information from average laborers and mechanics, avoiding equally those exceptionally favorably situated in regard to employment and wages and those new-comers who had not yet succeeded in getting a job; and almost without exception we have taken reports only from men who had families dependent upon their earnings for a support.

As a result, the deductions from our monthly tables, found in this report, we are confident, present as truthful a picture of the social condition of the laborers and mechanics, residents of our principal cities, as it is possible for a statistical work of this character to portray. Exceptional cases there doubtless are, as there always have been, and as there probably always will be; but as a reflection of the actual condition of manual labor in our larger cities it is reasonably accurate, and presents a standard, which with equally thorough investigations cannot fail year by year to record the advance or retrogression of labor in the localities represented. I have confined my monthly visitations to some four or five of the principal cities of the State, believing that a truer picture could be presented by selecting average representatives of the various callings, both of skilled and unskilled labor, and personally questioning and noting down the replies upon our prepared blanks, rather than by relying upon a promiscuous gathering of all kinds of reports extending over a wider field. Still, as the regular force of the Bureau consists of only the Commissioner and one assistant, one of whom is forced to remain in the office to transact the office work, I have been compelled to make an active use of the mails, and while I have received considerable aid through this channel, receiving from a few localities a very satisfactory series of monthly reports, the results in the main are far from satisfactory. I am not prepared to say that a reliance on the mails for reports from work-people is an entire failure, still the experience gained from year to year forces me to the conclusion that in comparison with personal visitations they are becoming more and more unsatisfactory, and I am coming more fully to agree with the older and more experienced of our Labor Commissioners, that to gain and maintain an accurate knowledge of the true condition of that portion of our fellow-citizens engaged in manual labor, personal investigations are necessary, and that a State Labor Bureau, in order to satisfactorily discharge the duties imposed by law, must be equipped with a sufficient force to inaugurate a thorough system of personal investigations in all of the cities and large towns of the State. Statistics gathered in this manner and carefully compiled would enable the Commissioner to at all times impart very accurate information regarding the social condition of the wage-working portion of our population.

A special agent in each city or town employed for two days in each month would be sufficient to accomplish this result. The appropriation to enable the Bureau to employ such agents in ten or twelve principal cities would amount to but a few hundred dollars annually, and would add much to the efficacy of the Bureau. It is an old axiom that what is worth doing at all is worth doing well, and if the State seriously proposes to exercise an effective supervision over the social condition of its rapidly-increasing wage-earning population, the agency it establishes to prosecute the work must be thoroughly equipped to discharge the duties assigned it. Other States, no more wealthy or populous than Kansas, make ample provisions for the main-

tenance of their labor bureaus, and there is no good reason why Kansas should not be equally liberal. In no other departments established by the State does this condition prevail. As a rule, ample provisions for the effective prosecution of their work are made, and although the establishment of this Bureau in its inception may have been regarded as an experiment, it has now demonstrated its utility or inutility, and should either be altogether abolished or properly supported. Twenty-two States now maintain bureaus of this character, seven having been organized subsequently to that of Kansas. The United States has created a department of labor, and it is now fair to presume that the condition of our wage-workers, both State and national, is destined to receive its legitimate share of governmental attention.

Under the general law regulating the printing of reports, only 2,500 copies of each department can be printed, (see Comp. Laws 1885, ch. 102, sec. 138,) and as no special provision was made in the law creating the Bureau, this limit has been necessarily adhered to; but as the years pass and the existence of the Bureau becomes more extensively known, the demand for copies of these reports largely increases. I have been obliged to refuse during the last half of the year a large number of requests for copies—coming chiefly from different parts of Kansas—because the edition was practically exhausted. I would respectfully suggest that the Legislature make provision for the publication of at least 4,000 copies of subsequent reports.

Section 4 of the law creating this Bureau provides that the Commissioner “shall, in the discharge of his duties, twice at least in each year, visit and inspect the principal factories, work-shops and mines situated within the State, and a true report make of their condition.” By reference to the last report of the Bureau it will be seen that 307 flouring mills, 513 manufacturing and industrial establishments, and 38 coal-mine operators reported a total of 858, and that these represented only about 90 per cent. of the whole, swelling the total to 1,000 in round numbers; and when, in addition to this, the Commissioner is expected to “collect, assort and systematize” each year “statistical details” regarding “all departments of labor and industrial pursuits in the State,” on an appropriation of \$1,000 for clerk hire and \$1,000 for postage, (each report mailed ranges from 12 to 17 cents,) traveling and all other incidental expenses, it will be seen that to strictly comply with the law, estimating that only one in ten of the factories and mines will come under the head of “principal,” involves an amount of labor wholly disproportionate to the provision made for its accomplishment.

The Wisconsin Bureau of Labor makes only biennial reports, and its last issue contains about 900 flouring mills and general manufacturing and industrial establishments, or only about 40 more than our own; and yet Wisconsin allows her Commissioner a deputy, a clerk, and two factory inspectors, besides a contingent fund sufficiently large to enable him to employ special

agents for specific purposes whenever the interests of his office require such special investigations. In all, the sum provided for the maintenance of this Bureau does not fall far short of \$10,000 per annum.

The duties of the Wisconsin Commissioner are very similar to those of the Commissioner of Kansas—to collect facts regarding the wage-working classes, and of manufactories and kindred industries, sanitary conditions, fire-escapes, &c., and see that all labor laws are complied with; and he is endowed with proper powers to enable him to enforce these laws.

WEEKLY PAYMENTS.

Regarding the proposed labor legislation of two years ago, the weekly payment of wages by corporations was among the most prominent. I know of little that can be added to what has already been said in my former reports on this subject. That the desire for such a measure is very general, at least among the poorer-paid employés, I think admits of no doubt. With the expansion of railroad interests beyond their primary duties as common carriers, especially in the direction of coal-mining, the practice of paying from the fifteenth to the twentieth of the month succeeding that in which the labor was actually performed, and which had obtained in the payment of railroad employés, was introduced, and has resulted in great dissatisfaction. While it may be urged in favor of monthly payments by railroad corporations that most of them are interstate, with their central offices remote from their field of operations in this State, and that frequent payments would necessitate a largely increased expense for office employés, the same argument would not hold good in regard to the payment of coal miners. At Leavenworth, where large coal fields have long been developed independent of railroad control, the practice of bi-weekly payments has prevailed from the start, and there seems no good reason why the railroad miners should not be equally favored. They are not, like other railroad employés, scattered all over the State, but are stationary at the field of their labors, and their pay-rolls could be made up with at least equal promptness with those of private corporations.

Regarding the poorer paid among the regular railroad employés, a prominent attorney who appeared in behalf of one of our principal railroad systems before the Senate committee to which the weekly-pay bill of two years ago was referred, admitted that in the case of section-men weekly checks could be sent to the station agents of the company and by them disbursed; but he thought it would be impracticable to pay all grades of employés scattered throughout the State at such short intervals, and in addition he thought the better-paid employés did not desire it. As a rule, employers of labor throughout the State make weekly payments, and that this course is

more equitable and just to the employé, is beyond controversy. The old stock argument that frequent payments only give men a chance to get drunk that much oftener—an argument which, by implication at least, presumes that the employer must arrogate to himself a guardianship over his employé—is “playing out.” It is an insult to intelligent labor, and ought not to be tolerated. From an intimate acquaintance with the workmen of the State—and in this connection I do not propose to include corner loafers who may be driven by stress of circumstances to work a day or two occasionally—I venture to say that the proportion of drunkards and drinking men is no greater than it is among business men or among members of the so-called learned professions. This argument abandoned—and it is a very sorry one—no other reason can be advanced save that of ability; at least this is the only reason that ought to have any weight with a legislative body. In my experience as Commissioner, the knowledge has frequently come to me of railroad contractors who have defaulted in the payment of their men, and while in some instances these men have ultimately been enabled to recover a part of their earnings from the railroad company, the process usually proved so tedious and expensive as to leave the laborer actually in debt for more than the amount of money awarded to him. A laborer employed in the construction of a railroad at \$1.50 or less per day, has not, as a rule, funds to defray his expenses for the forty or fifty days he is obliged to wait before he receives his first earnings, and as a result long before the expiration of this period the larger part becomes hypothecated to the boarding-house and the storekeeper, frequently in both cases his employer. It is useless to state that under these circumstances competition is eliminated, and he is compelled to pay, almost without exception, a higher price than would be the case were he a free agent in making his purchases, as he would be in a great measure if his wages were paid him at weekly intervals.

To find what, if any, benefit the passage of a weekly-payment law has been to employés of corporations, I addressed a letter to Hon. Rufus R. Wade, Chief of the District (or State) Police of Massachusetts, of which the following is a copy:

OFFICE OF COMMISSIONER OF LABOR STATISTICS. }
TOPEKA, KANSAS, October 6. 1888. }

Hon. Rufus R. Wade, Chief of the District Police, Boston, Mass.—DEAR SIR: Will you kindly inform me as to the working of the “Weekly-Payment” law of your State, and especially whether under the amendment of 1887 application has been made to the Railroad Commissioners asking that any class of railroad employés shall be exempted from the provisions of this act.

Very truly yours,

FRANK H. BETTON.

Mr. Wade replied as follows:

OFFICE OF THE CHIEF OF THE DISTRICT POLICE, }
BOSTON, MASS., October 10, 1888. }

Frank H. Betton, Esq., Commissioner Labor Statistics, Topeka, Kansas—DEAR SIR: Yours of the 6th inst. is received. I send you by mail a copy of my annual report for 1886, which contains the reports of the several inspectors, who have given therein their observations of the operation of the weekly-payment law. This subject is

treated more fully than in any other of my reports. (Pages 54 to 75.) In regard to the case of railroad employés, I have not learned of any applying to the Commissioners to exempt them from the provisions of the law.

Yours respectfully,

RUFUS R. WADE,
Chief Massachusetts Dist. Police.

In this connection it may be proper to state that a law requiring corporations to pay their employés weekly was passed by the Legislature of Massachusetts during the session of 1886, and at the next session (1887) this law was so amended as to provide that the Chief of the District Police, or any State inspector of factories and public buildings, might bring a complaint against any corporation violating the law, and also releasing railroad corporations from its provisions where it affected any class of their employés who, in the opinion of the Railroad Commissioners, preferred less frequent payments. The chief object of my letter was to ascertain whether any class of railroad employés in Massachusetts had availed themselves of this permission to ask for less frequent payments, and it seems from Mr. Wade's letter in reply that no request of this character has thus far been received by the Board of Railroad Commissioners of the State. The report mentioned by Mr. Wade was duly received, and many very interesting facts regarding the working of the law are found in its pages. I regret that space will not permit me to transfer the reports of the several inspectors bodily to this chapter.

Mr. Wade has in his force eight inspectors of factories and public buildings, to each of whom is assigned a district. Inspector White, of the Middlesex County District, says:

"So far as I can learn, a large majority of the operatives prefer weekly payments, and would not wish to return to the old system. They say that the fact, if it is a fact, that a portion of the operatives make a bad use of their money, is no reason why the others should not be paid weekly, any more than it is a reason why they should wait two months for their pay: that by getting their money oftener they avoid trading on the credit system, and can thus buy cheaper and buy where they please, and that any defects in the working of the new system will be remedied by time. I do not think there will ever be a return to the old system of monthly payments."

Inspector Hunt, of the Essex County District, reports as follows:

"The remonstrants against the change from the monthly to a weekly system of payments by corporations in Massachusetts, at the several hearings before the Legislative Labor Committee, attempted to show that any change in the monthly system would be detrimental to both employer and employés. That seventy-five per cent. of the mill operatives under the monthly system of payments, as it then stood, were greatly benefited. That the remaining twenty-five per cent. would not be affected at all, either for better or for worse, by the change to a weekly system, and it might prove to be a positive injury to such, rather than a benefit. That the buyers of the necessities of life, for family consumption, could trade with a monthly order-book as cheaply as with the cash in hand. That the grocer, butcher, etc., were against any change. That the retail liquor-dealers, located in the large factory cities, were more interested in a weekly system of payments than the bene-

ficiaries. That a large percentage of the male mill operatives were addicted to the immoderate use of intoxicating liquors. Of this 'break-neck' class of employés, at least ten per cent. would be either absent the day after pay-day, or incapable of doing as much work the next day after. If a weekly system of payments was adopted, this class would augment their sprees from twelve to fifty-two per annum. That under the monthly system, the superintendents or managers of some of the corporations buy coal and other supplies for their employés, collecting payments therefor from the first monthly wages due, or by installments, thus becoming, to use an axiom of one of the shrewdest mill managers in Essex county, 'the uncle or grandfather of the operatives in the employ of the corporation.' Under the new system they make their own purchases.

"The petitioners in presenting their grievances, claimed: That it was easier to pay their bills weekly than monthly. That weekly payments would enable them to keep out of debt, live cheaper and dress better. That the storekeeper would rather trust the mill operatives a month than have them pay cash from day to day. When they had running accounts they were liable to indulge in luxuries, while if they paid as they went, they would only buy the necessities of life. That the monthly-credit system worked great injustice to operatives, preventing them from taking advantage of favorable opportunities to purchase family supplies. That it compelled honest men to pay the bills of the dishonest. That the grocer, butcher, etc., held a *perpetual mortgage* on their daily toil and hard-earned wages. Under a weekly system they would have some of their wages in their own pockets, while under the monthly, the storekeeper had it all in his.

"On a recent tour of inspection in the Eastern District, it was found that the new system of weekly payments had been universally adopted by all of the corporations manufacturing in Essex county, and by a large proportion of the private industries of the same. Mill superintendents and managers, storekeepers and their agents, and the operatives of both sexes, single and married, were interviewed, with the following results:

"In the localities where liquor and license prevailed, it was found that intemperance existed alike under weekly or monthly payments. Neither an increase nor a decrease was noticed. Also, that male operatives were not any more addicted to intemperance than other classes of citizens or workingmen. Under the new system, if the unfortunate operative absents himself the day after that of weekly payments, the shrewd mill managers of Essex county soon weed him from their rolls of employment, giving their preference to men of better habits and of more profit to the corporation."

Mr. Hunt submits a table, the result of a special canvass made by the superintendent of a corporation employing 700 adult males, showing that a very small percentage of the employés absented themselves after the weekly pay-day through the effects of getting drunk. During the first month two only were found, and during the second month but one.

Inspector Hunt further states:

"Among the mill managers who believe the operatives under the new system have been materially benefited, are found the friends of coöperation. Prudent and intelligent operatives state that weekly payments have reduced the cost of living; that it has created a competition among the grocers, butchers, etc.; that these traders now run in competition to each other, to catch the cash customer; and that all the retail prices for the necessities of life have consequently been reduced 15 to

25 per cent. Bottom cash prices rule the markets. Under the monthly system there was a combination among the grocers and butchers, which fixed the current retail prices, and the customer must pay them. Monthly payments was the rule and custom, and all trading was done on that basis. The purchasing power of the cash dollar was no greater than that of the monthly store-book.

"Conceding that the honest and prudent operative will always pay his debts whether his earnings come monthly or more frequent, in his purchases for his family he will even make a saving after deducting a half-day lost, and the expense of a trip to a neighboring city. A number of cases can be cited where mill operatives in adjacent towns have saved at least 15 per cent. by trading at the cash grocery and provision stores of Lawrence. Another operative states that the new system has increased the purchasing power of the earnings of the operatives. Since weekly payments have become general in Lawrence, rents, and the prices of teas, coffees and meats have been reduced at least 20 per cent. by the establishment of cash stores and markets. He furnishes the following prices under the old and new system:

OLD SYSTEM.		Per pound.	NEW SYSTEM.		Per pound.
Round steak.....	18c.		Round steak.....	15c., or 2 for 25c.	
Sirloin steak.....	25 to 28c.		Sirloin steak.....	18 to 20c.	
Roast.....	12 to 16c.		Roast.....	9 to 12c.	
Corned meat.....	8 to 12c.		Corned meat, 5 lbs. for 25c. with a cabbage thrown in.		

"All other kinds of meats, vegetables, teas and coffees are reduced in the same proportion. In the grocery business there seems to be a struggle for trade. Each trader is working in every way to hold his customers and increase trade by cutting his prices to suit the cash trader. The managers of corporations, who, for two years or more, have adopted weekly payments, state that the new system has in every way possible benefited their operatives. Their employés were among the best, and were contented; running up no store accounts, they have been living much cheaper by paying cash. The following extract taken from the eighth quarterly report of the Arlington Coöperative Association for October, 1886, is appended: While giving a gain of membership, and a large increase of sales over the first quarter's report for January, 1885, it shows a growing cash business in Methuen and Lawrence. This coöperative company now numbers 351 members, with a share capital of \$5,755. The total sales for two years aggregate \$83,579.88. Gross profits, \$14,180.50; net profits, \$6,043; dividends, \$5,068.38; carried to sinking fund, \$975. The average weekly increase of sales since January, 1885, were for the first quarter, \$503.24; second quarter, \$532.71; third quarter, \$546.94; fourth quarter, \$572.02; fifth quarter, \$591.78; sixth quarter, \$616.72; seventh quarter, \$680.16; eighth quarter, \$825. Thus it has been shown that the new system of payments has opened the door through which coöperation has come, and its success is only possible when based on a cash system of buying and selling."

Inspector Dyson, of the Worcester County District, says: "It [the plan of weekly payments] certainly has reduced the earnings of civil officers, as they rarely have the opportunity to serve trustee processes, where formerly such cases were numerous."

Inspector Coon, Suffolk county, whose district includes the city of Boston, says: "I have found no dissatisfaction thus far with its requirements. It has been the custom in Boston for a long time to pay wages weekly, and among operatives there is no desire to return to the old system."

Inspector Dexter, (Bristol, Barnstable, Dukes and Nantucket counties): "Others claim that they can get groceries and other supplies cheaper by

paying for them weekly, and consequently that portion of the law is valuable to them. Tradesmen express the opinion that they are not liable to lose as much by the weekly as by the monthly system, for the reason that they do not allow so long credit; therefore when they do lose, the amount is not so large as formerly. On the whole, it seems as though the majority were favored by the present law."

Inspector Buxton, (Hampden and Hampshire counties): "I have inquired of many operatives who seem to have various opinions in regard to it, but all admit that if they conducted their transactions upon a cash basis the change would be beneficial to them. One large corporation has paid its help weekly for two years or more, and claims that the system has been advantageous to both parties; acting as a stimulus to the operative by making him more steady and constant at his work, and thus of more value to the employer, while at the same time increasing his wages."

Inspector Chadwick, (Berkshire and Franklin counties): "As to the results of weekly payments, I find that the change is giving great satisfaction in most places, more so to those who receive small wages. To the thrifty, who may receive comparatively large pay, aside from the feeling that they ought to have their money after it is earned without waiting so long for it, it makes but little difference, they having enough to supply their wants. Storekeepers and traders of various kinds are about equally divided as to its effect on them. An opinion expressed to me by a prominent manufacturer may be worth recording in this report. His statement was, that under the old system of monthly payments the production from his looms was about ten per cent. greater the last week in the month than it was any other in the month, but now every week was like the last, and although at first opposed to the change, he would not return to the old system. Others with whom I talked were indifferent to it; but with most of the wage-workers the opinion was that it was greatly to their advantage."

The few adverse reports of the working of the law all come from agents of corporations. Inspector White, for instance, who says "a large majority of the operatives prefer weekly payments," finds that these agents generally complain that twenty per cent. of the operatives now have fifty-two chances in the course of a year to get drunk where they only had twelve before, that forty per cent. have to buy provisions in smaller quantities, and by implication concludes that they have to pay larger prices, although this charge is not specifically made, and that it makes no difference to the remaining forty per cent. whether they are paid weekly or monthly.

Inspector Thomas (Norfolk and Plymouth counties) says: "Neither do I find any [employés] but what say they might be benefited if they made a special effort to take advantage of the benefits which the law offers." Mr. Thomas goes on to relate an anecdote of two train hands employed on the Old Colony Railroad. Both wanted an overcoat; one drew his money weekly, spent it, and went without an overcoat. The other drew his at the

end of the month, and had enough money left after paying his board to buy an overcoat. The moral of this statement seems to be that young men (presumably single, as they have to pay board) had better not draw their wages oftener than once a month if they want to save money enough to buy overcoats. It seems to me that this anecdote does not touch the main question of cash payments for food, clothing and shelter for wife and babies. This exhausts the "adverse" reports.

When it is remembered that this law only went into effect on July 1, 1886, and that the report from which I have quoted was published on January 1, 1887, when the law had been in force but six months, and was encountering the friction attendant upon the introduction of all laws of this character, the statements of these inspectors, on the whole, seem remarkably favorable. Under date of January 2, 1888, Mr. Wade, whose duty it is to enforce the law, wrote me as follows regarding it: "From the reports made to me by the inspectors in this department, and from personal observations, I am constrained to say that it will prove advantageous to those whose only capital is their capacity to do daily labor."

I also wrote to Hon. Samuel M. Hotchkiss, Labor Commissioner of Connecticut, and received the following reply:

HARTFORD, CONN., NOV. 17, 1888.

Hon. Frank H. Betton, Topeka, Kansas — DEAR SIR: IN ANSWER to your favor of the 6th of October, respecting the practical working of our weekly-payment law, would say that I hoped to have had opportunity to write you fully before this. Our Legislature meets early in January, and the necessary work connected with the preparation of my report has made it impossible for me to give the subject adequate attention.

Connecticut, you know, is called "the land of steady habits," and this characteristic is true in many respects. Our people are essentially conservative, and are slow to adopt radical changes. They are, however, a reasoning people, and generally come out right in time. The adoption of our weekly-payment law was a change which has called out this characteristic of our people, and the subject is slowly working its way, as I trust and believe, to final universal adoption. You are probably aware that our law requiring weekly payments applies to corporations only. The bill as originally drawn provided for weekly payments by corporations without exception, but the opposition to its passage developed an amendment as follows:

"SEC. 1750. Every corporation that shall pay weekly to such of its employes as shall call at the usual place of payment for the same, eighty per cent. of their estimated wages, earned and unpaid before the eighth day preceding the day of payment, making no discount on account of such weekly payment, and shall pay in full once in each month, and shall give notice of the same in its printed rules and regulations, shall be exempt from the provisions of the preceding section."

I regard this as unfortunate, and shall seek to have it amended. The law became operative on the first of July, 1887, and I have had opportunity to observe its working during the time in which it has been in force. It is proper to say that the movement on the part of our labor organizations for such a law was anticipated by many of our manufacturers who had studied the subject, each from his own standpoint, and had become convinced that exemption of wages from foreign attachment and the weekly payment of employes would result to the material advantage of the employes as well as the employers.

I could refer you to numerous instances in which this conclusion was reached,

and this course adopted with marked and happy results, long before the agitation of this question began. An illustration may be of interest to you. It is one of many which I might instance. The president of a thriving manufacturing establishment, who has always interested himself in the welfare of the laboring-people in his employ, noticed in the service on them of what in Connecticut is called the factorizing process, in the pass-books of some of their men whose wages had been thus attached by merchants for the payment of these bills, that the prices charged these men for the necessities of life were considerably in excess of those charged him by the same dealers for the same articles. He asked at once an explanation of the dealer. He replied that he was obliged to charge the men more because a considerable number of them would get behind in their accounts, and he was obliged to be at the expense of legal action, with the risk of losing the whole account, and so was obliged to charge a higher rate in order to cover these contingencies. It occurred to this president at once that if the men were paid frequently, say once a week, the storekeepers would not trust them to run up accounts, and that their employés would necessarily become cash purchasers. He thought the matter over, and consulted the storekeepers of the town, who said at once that they would greatly prefer a cash system of payment, and that with such a system the employés could secure their goods at as low a figure as their employers, and that they would be able to furnish both with goods at less cost than under the old system. He at once called the employés together, explained the matter to them, and proposed, if it met their wishes, to adopt weekly payments for all in place of monthly, to enable them to buy for cash. The employés were glad to have the plan adopted. There were other large manufactories in the town under like enlightened management, who at once agreed, after consulting their employés, to adopt the weekly-payment system in the town. The result was what had been anticipated. The testimony of employers, employés and merchants bears witness to the advantages of the weekly-payment system, which has remained in full force.

I could give you other instances of a like character, in our large manufacturing establishments, where large numbers of hands are employed. The successful working of the plan in such places as I have described, undoubtedly prepared the way for the adoption of the law. All employers are not of this enlightened class, but many of them, while open to conviction, were of the opinion that the old system of monthly payments was in the majority of cases likely to prove the best. Then there was the considerable class who did not pay particular regard to those matters, but objected to changes which added to the expense and trouble of conducting business. You will notice that the employés in all of our incorporated companies are legally entitled to weekly payments, or to the weekly payment of 80 per cent., as provided in the clause of our law before referred to. I have met personally very large numbers of the laboring people of this State, and I have yet to hear the first expression from one of them which does not favor weekly payments.

A very considerable number of our more enlightened manufacturers adopted weekly payments before the law was enacted. A majority of all our incorporated companies are paying weekly in full, or under the 80-per-cent. clause. In my opinion those of the manufacturers who oppose weekly payments — and the number is not small — are gradually becoming convinced that on the whole the change is a desirable one, and their opposition seems less pronounced.

It is my opinion that considering the conservative tendencies of our people in regard to matters of change, the law is received with more general favor, after something more than one year's trial, than was to be expected. But I do not wish to have you infer that the general result is an ideal one. We are an intensely practical people, and given to a sturdy maintenance of individual liberty, and the subject is

still under discussion on its merits, many claiming still that its disadvantages outweigh the good results. When the law went into effect, July 1, 1887, many corporations, and among them some who cultivate the kindest relations with their employes, notified their employes that any who desired to be paid weekly "could leave their names at the office." The inference which was in almost every instance drawn from such notices, was that it would not be safe to claim their legal privilege. The men feared that in case they did, while they would not meet, probably, with immediate discharge, whenever dull times came they would be quietly laid aside, and those who had been discreet enough to hold to the monthly system would be retained. Whatever might have been the result generally, I am satisfied that in very many instances the employers took this quiet way of perpetuating in their establishment the old system of monthly payments. This is especially true in the eastern part of our State, where the textile industries employ a majority of the manufacturing capital, and where the old factory-tenement and factory-store system still prevails. The cases are not so numerous in the other portions of the State.

In this connection it is but fair to state some of the objections of those who oppose changing from the monthly to the weekly system. The objections urged to weekly payments on the part of manufacturers may be briefly summarized as follows:

First—That the more frequent payment causes them additional trouble and expense.

Second—That it necessitates employing a poorer grade of help, with consequent loss from defective work.

Third—Because they believe that it is worse for the employes.

The first objection is of small importance, and need not be considered. In the second objection there is an element of truth, so far as it relates to the average manufacturer. The man who is sober and industrious pays his bills, and reaps the advantage of the change, while the intemperate, the vicious and the dishonest have more frequent means for gratifying their appetites and lusts. It naturally follows that when a new mill starts, or a more desirable field opens to the workman, the one who is sober and thrifty avails himself of it, while the other is never ahead, is in debt, and obliged to remain. The grade of help of the average manufacturer is thus reduced, with consequent losses from stoppages of machinery, from absence of regular help, and by the imperfect work of the poorer class of workmen.

While the opportunities for the payment of debts are increased, the frequent opportunities to indulge in dissipation and drunkenness are also increased. It is claimed that the families of men who drink get a smaller share of the earnings under the weekly system than they did under the monthly system, but it is difficult to see why most of the objections urged against the weekly system do not apply with equal force to the monthly payments.

I am glad to be able to say that the intelligence of our State is firmly enlisted on the side of weekly payments, and that the conviction grows with experience, that as soon as we have had time to adapt ourselves to the changed relations necessitated by the adoption of the weekly system, it will be satisfactory to nearly all of our manufacturers. No one in our Legislature would have the temerity to propose the repeal of either the weekly-payment law or the law exempting wages from foreign attachment. I am persuaded after a thorough inquiry into the working of the law that it is a beneficent measure, and one which your enterprising State will do well to inaugurate. I have endeavored to give you an impartial view of its working here, and not to cover up or obscure the fact that it meets with opposition in many cases. I hope and expect that in reasonable time our Legislature will make its adoption compulsory on employes as well as employers, as that will remove the difficulty involved in the case where the manufacturer tells his employes that he will pay them

weekly if they say they want it, which they interpret to mean that if they ask it, sooner or later they will be discharged by reason of their request.

I do not know whether this will meet the purpose of your inquiry or not. The points are hastily and crudely put together, but I shall be glad if it will be of any service to you.

Very truly yours,

SAMUEL M. HOTCHKISS.

As to how extensively the weekly payment of wages already prevails in Kansas, the following will show, compiled from the employers' reports received at this office during the past year, and which will be found in tabulated form further on in this report:

Of the 17,064 employés of manufacturing and industrial establishments, including flouring mills, 12,112, or about 71 per cent., are paid weekly; 1,540, or about 9 per cent., are paid semi-monthly; and the remaining 20 per cent., or 3,412, are paid monthly. In the packing houses in Kansas City, Kansas, (six in number) where the largest body of wage-workers are employed, 2,479 are paid weekly, and 1,194 every two weeks. The firm employing the largest number of employés, reaching at one period of the year to 2,300, paid every week. In Leavenworth, where the largest stove foundries and machine shops are located, employing nearly 500 hands, weekly payments prevail.

THE COAL-SCREEN LAW.

On page 320 of the Third Annual Report of this Bureau will be found a copy of House bill No. 351, providing for the weighing and crediting to the miners of all coal before it shall have been screened. This bill is similar in its provisions to the law now in force in Missouri, and passed the House at its last session, but was not reached on the Senate calendar. The sentiment in favor of a measure of this kind is very strong among the miners of the State, and I have received a number of communications from miners' organizations asking that such a law be enacted by the present Legislature. As these communications are all of the same purport, and very similar in their leading features, I have selected a few as samples of the whole, and herewith respectfully submit them:

L. A. 4397, K. OF L., }
STIPPVILLE, CHEROKEE COUNTY, Dec. 7, 1888. }

F. H. BETTON, Esq.—*Dear Sir:* We are requested by our District Master Workman to make known to you our wants in regard to legislation. In the first place we would call your attention to the two bills which we have inclosed. One is the Missouri screen law, and the other the Massachusetts weekly-pay law, both of which are given in your report of January 1, 1888. You will notice that we took action on these measures before the election, and the members-elect to both houses from this county have pledged themselves to work for them.

We have also been asked to state what amendment we can suggest to the mining law, and in answer will say that in our judgment the law has never had a fair trial, and in some instances within our knowledge, no effort has ever been made to enforce

it, and it is practically a dead letter. Section 14 should be amended, and that portion permitting the judge to throw the costs of suit upon the inspector instituting proceedings, provided in his opinion the cause of action be insufficient, be stricken out. We look upon this discretionary power given the judge as a menace to the inspector, as he might be deterred from instituting proceedings with such a proviso staring him in the face. We also think that the county should aid us in the enforcement of the law, as it is a hazardous industry in which so many of our people are engaged, of a class illy able to protect themselves. We have one more recommendation to make. The late accident at Frontenac has demonstrated to us miners, as well as to most managers, that there is danger in the mines at the time when there is so much powder being exploded at one time; and since the accident the majority of the managers have employed men to fire the shots after the diggers, and all other men are out of the mine at night, but some of the operators are opposed to this plan and refuse to adopt it. We recommend that another section be added to the mining law, compelling operators to employ competent men to do the shot-firing after all others have left the mine.

In regard to the complaint that the mining law is not enforced, some people will suggest, why don't you miners enforce the law? Send for the inspector and make him do his duty. Our answer to this is, that past experience has taught most of us that such a line of action most generally results in the discharge and sometimes the blacklisting of any man who has the temerity to do such a rash thing. We know of some in this locality who have forfeited their employment for less than that would be; and as machinery is taking the place of muscle and making tramps at such a rapid rate, it is becoming more difficult for an honest man to get employment and retain it; so you see it behooves us to be careful what we do in that direction. We believe this is the feeling of most miners both in our organization and out of it.

Hoping this will give you some idea of our wants and aspirations, we rest our case for the present and watch the law-makers. Yours truly, COMMITTEE.

LITCHFIELD, CRAWFORD COUNTY, KANSAS. Dec. 3, 1888.

To Frank H. Betton, Commissioner of Labor Statistics, Topeka, Kansas—DEAR SIR: We had a communication from Brother Robert Linn, M. W. Div. 11, K. of L., advising us to make our wants known to you. Regarding the 85-lb bushel, as at present exacted of us, we will say that we are not in favor of giving any more than the law allows, and it is the desire of all the men that I have come in contact with to see the present Legislature pass a law compelling all companies to weigh coal on top before it is screened, and I don't think there is anything unfair in that. I have no doubt the companies will have men to sign petitions or go to Topeka and say that the present system is good enough; but if you inquire into the matter you will find that the companies have some hold on them; and I would say, do all you can for the anti-screen bill and the weekly-pay bill. We don't care much about the latter, but would like a law to regulate company stores. The mining law as it is we think is of no good. We have not given it much study, but we think the inspector ought to be chosen from among coal miners, and have had at least ten years' experience as a coal miner. We also think the law ought to be so amended as to compel coal companies to hire competent men to examine each mine, shaft, or slope before the commencement of each shift, or every morning before the men go to work for the day. We think there ought to be a heavy penalty on any company who shall refuse or neglect to comply with the law. We think there ought to be a law in addition to the above to compel the companies to have men of experience to fire all shots in mines where it is considered dangerous, and that the inspector and four practical miners from each shaft shall have power to say when a mine is dangerous. I think a little inquiry in this district will enable you to see that some action is necessary.

We sent a man from here to visit the last Legislature and try to make our wants known, but when he came back he could not get work here. So you see how it is with us: if we try to assert our right we have to go, and that don't always suit a man with a family. I think there ought to be something regarding that; that is the companies picking out men and discharging them for trying to assert their rights as men.

Wishing you all success, I remain yours,

R. S. L. A. 1144. K. of L.

SCAMMONVILLE, KANSAS, Dec. 20, 1888.

Frank H. Betton, Esq.—DEAR SIR: We have been requested by Master Workman Linn to state to you our wishes with respect to the 85 pounds per bushel required of the miners. The members of this Assembly think that if we can get a screen bill passed it will cover all, as prices will have to be altered to make the difference between lump coal and run of mine. We also wish a weekly-pay bill, to enable us to see how wealthy we are a little oftener. Yours very truly,

R. S.

SCRANTON, KANSAS, NOV. 19. 1888.

Hon. Frank H. Betton, Labor Commissioner, Topeka, Kansas—SIR: I am instructed by L. A. 1045, K. of L., to write and request that you recommend in your report to the Governor the passage of the screen bill, so that the legal bushel of 80 pounds will be a bushel, instead of 85 pounds as is the rule at present. Otherwise recommend that there be a penalty attached to the present law of weights and measures. If the screen bill, or more properly speaking, House bill No. 351, was passed, I know it would make a difference in favor of the miner. I know the miners of Missouri are satisfied with the same law.

Hoping this will meet with your approval, I remain, respectfully,

R. S. L. A. No. 1045, K. of L.

WEIR CITY, KANSAS, NOV. 27, 1888.

Mr. Frank Betton—DEAR SIR: The members of this Assembly are in favor of the statute bushel of 80 pounds of coal, and also of a semi-monthly pay law. They are also in favor of an amendment to the mining law, requiring the air 30 feet from the working-face. Yours respectfully,

COMMITTEE.

The next two communications were furnished at my own request, and give the screen question from the miners' and the operators' standpoint. The first is written by a prominent and experienced miner, who stands well with both the operators and the miners; and the other is from Mr. D. Mackee, sr., a mine superintendent of great experience, and who is thoroughly conversant with all the phases of mining life:

SCAMMONVILLE, KAS., October 21, 1888.

Hon. Frank H. Betton, Commissioner of Labor, Topeka, Kansas: According to your request, I will give you a few reasons why a law should be passed in this State requiring that the coal mined be weighed and credited to the miner before any system of screening is done.

1. Some mines make a great deal more water than others, and as a consequence, to clean the coal and take all the slack out would require a larger screen than would be necessary to clean the coal produced from a dry mine. Should the operator of the wet mine enlarge his screen to clean his coal in the same manner as that produced from the dry mine, his miners would object; and if the operator should persist in enlarging his screen, the miners would not work for him, and a strike would be the result. In fact, nearly all the trouble which has occurred around the mines in

Cherokee and Crawford counties for the last six years has been caused through the manner of screening and weighing of coal at the mines.

2. Some operators of mines are more avaricious than others, and wish to take advantage of their fellow-operators, more especially during the summer-time, when the coal trade is dull. They therefore enlarge their screens so that they may be able to place a cleaner coal on the market and sell more coal than those operators who are not willing to take the same advantage of their workmen and others engaged in the coal trade. In fact, no summer has passed for the last six years without some of the several coal companies in the above two counties having their screens enlarged and remodeled in one way or another. All such changes are looked upon in only one way by the miners, as the changes invariably lessen their wages, and are the prime cause of strikes and discontent.

3. The passage of this bill would enable the workmen and operators to come to a fair understanding as to the price of the coal as it is mined, and every coal company or operator could screen his coal to suit the market in which he sold the same. It would also remove the opinion of the miners that the companies wished large screens to make large quantities of nut coal and slack, for which the miner gets no payment under the present system.

I could go on and give more extended reasons, but think the above are enough to convince any thinking and impartial citizen that the screen bill should be made a law by our State Legislature the coming session. Hoping it may be so,

I remain yours,

A MINER.

SCAMMONVILLE, KAS., Dec. 9, 1888.

F. H. Betton, Topeka, Kansas—DEAR SIR: Being absent on business has delayed me in giving my views on the screen law. Any law providing for the protection of the miners will always meet with my hearty approval, but in the screening law as passed in Missouri, I cannot see any benefit either for the employer or for the employé, but on the contrary can foresee that it will cause trouble. At the present time we pay four cents per bushel for all coal passing over a $\frac{3}{4}$ -inch screen, and the result would be if a law was passed requiring all coal to be paid for before leaving the pit cars, that a reduction would have to be made in price to make it equal to what is paid at the present time, and the delay in weighing the small cars on top will increase the expense of production. This, and the sulphur we would have to pick out of the large cars, would all have to be taken into consideration in fixing the price of mining coal under the new system. The worst feature, and one that should be considered above all the rest, is that it would encourage the excessive use of powder and blasting out of the solid, which has been the cause of all the serious disasters we have had. In my judgment, if we had a law to compel all coal to be mined or cut before any shooting was done, with a restriction on the amount of powder to be used, we would accomplish something that would be of far greater benefit to the miners and mine-owners than any of the present existing laws.

Our mining law provides that only five pounds of powder shall be taken into a mine at one time by each miner. After the passage of said law I wanted the law executed. The men objected, and Jno. R. Braidwood, then Mine Inspector of the State, thought it was not necessary, as he thought that taking it in in kegs was as safe as in 5-lb. cans. After the Fleming explosion I had 5 lb. cans made, and advised the men to adopt the same as provided by law; but they again refused, and to avoid a strike I let it pass. At the present time we have put on men to do the firing and to make mining safer, and we do all we can to avoid disasters, as I am confident after careful investigation of the Frontenac disaster, that excessive use of powder and blasting on the solid was the cause of said explosion, for there was no gas in

that mine in such quantities as to make such an explosion possible. The mine was very dry, and the flame from the shot fired blew out the tamping. This ignited a keg of blasting powder, and the concussion disturbed and raised the fine coal dust. This, coupled with the explosion of still more kegs of powder, caused the raising of still more dust, and resulted in the explosion. I have never known of a mine explosion in any of our Western mines except at the time when the miners were blasting, and in my opinion they are caused solely by the excessive charges of powder. This should and can be stopped by restricting the amount of powder used. M. B. Potter, a mining engineer, expresses my views in this regard in saying, referring to the Missouri law: "There is one provision of the present law which appears very unfavorable, and should be carefully reconsidered; it is that requiring that all coal shall be weighed and accounted for to the miner before it is screened. The result of this is that the miners are only interested in securing large weights, and not in the proportion of round or lump coal. They are therefore led to obtain the coal in the easiest and quickest way, irrespective of condition, and that is by blasting out the coal from the solid without cutting it. It would be a wiser measure, both as regards safety and economy, to allow payment only for marketable grades produced at the screening, and in such ratio as to make it to the interest of the men to produce as little small coal as possible." Yours respectfully, D. MACKEE, SR.

Desiring to obtain all the information possible regarding the working of the coal-screen law in Missouri, I addressed a letter to the Hon. Oscar Kochtitzky, the Labor Commissioner of that State, from whom I received the following reply:

OFFICE OF COMMISSIONER OF LABOR STATISTICS AND INSPECTION, }
JEFFERSON CITY, MO., November 24, 1888. }

Hon. Frank H. Betton, Topeka, Kansas—MY DEAR SIR: In answering your letter of November 20th, regarding the "coal-screen law" of Missouri, I will say, that it is the general supposition that this law will be repealed at the next session of the General Assembly of this State.

Developments have shown that it is inducive to poor mining. The miners being paid for "mine run" coal, have no inducement to produce *good, marketable* coal, and in order to increase their "output" resort to the excessive use of powder and heavy blasting, shooting from the solid, without "under," or "side" cutting. Good miners are desirous to return to the former system, of receiving pay for screened coal, as in that way they need not compete with careless miners. Operators assert that they cannot stop the excessive use of powder and the firing of overcharged shots, under the existing screen law. Very respectfully, OSCAR KOCHTITZKY.

In order to obtain the Missouri miners' opinion regarding the working of the law, I next corresponded with one of the leading miners of that State. The correspondence will explain itself:

TOPEKA, KANSAS, November 30, 1888.

G. W. Dinsmore, Moberly, Mo.—MY DEAR SIR: I have been referred to you as a representative Missouri miner. I desire to ask, for purposes of publication in my forthcoming annual report, whether in your opinion, the miners of your State desire a repeal of what is known as the Missouri Coal Screen Law, and whether they as a body will ask the Legislature at its coming session to repeal the same. If you can procure me, in addition, an opinion on the subject from your local or State Miners' Association, I shall be much gratified.

Yours very truly,

FRANK H. BETTON, *Commissioner*.

MOBERLY, Mo., December 3, 1888.

Frank H. Betton, Commissioner of Labor Statistics, Topeka, Kansas—MY DEAR SIR: Yours of 30th inst. to hand. As there was a delegate convention in this city representing over 1,200 miners of Randolph and Macon counties in session, I at once placed your letter in their hands. The inclosed resolutions were unanimously adopted. It shows how earnest we are about having the Missouri screen law *left as it is*. The same evening (December 1st) I met with L. A. No. 9431, Knights of Labor. They also took action; the resolution find inclosed. It shows a determination not to have it tampered with. It also passed unanimously. I can get you an expression of the National Federation of Miners and Mine Laborers of this State, as soon as they meet. I am sure it would be similar to those I send you.

So far as any desire on the part of the 4,000 miners of this State wanting this law changed or repealed, I venture to say that there are not ten who want it amended, and *not one* wants it repealed. In the opinion of all, it would cause widespread dissatisfaction and any number of strikes. I am now and have been for years a coal miner.

Faithfully yours,

G. W. DINSMORE.

HALL OF CONVENTION, }
MOBERLY, Mo., Dec. 1, 1888. }

Frank H. Betton, Esq., Commissioner of Labor Statistics, Topeka, Kansas: In reply to your communication to G. W. Dinsmore, of Moberly, Mo., asking if we are in favor of repealing the Missouri coal-screen law, we have this to say: We, the miners of Randolph and Macon counties, in convention assembled, are emphatically opposed to any change or alteration of said law as it now stands on the statute book of our State. We do not know of a miner that wishes it changed, as we consider it the best law that ever was passed in our behalf, as regards justice and equity.

James Lennan, President, Huntsville, Randolph county, Mo.

James Blee, Secretary, Elliott, Randolph county, Mo.

James Reynolds, Delegate, Huntsville, Randolph county, Mo.

J. R. McCauley, Delegate, Kenick, Randolph county, Mo.

Jas. Johnston, Delegate, Higbee, Randolph county, Mo.

Joseph Liddell, Delegate, Elliott, Randolph county, Mo.

O. D. Wallace, Delegate, Huntsville, Randolph county, Mo.

P. Snell, Delegate, Huntsville, Randolph county, Mo.

W. M. Saulsberry, Delegate, Huntsville, Randolph county, Mo.

C. Minshall, Delegate, Bevier, Macon county, Mo.

D. S. Andrews, Delegate, Bevier, Macon county, Mo.

JAMES BLEE, *Secretary of Convention*.

RESOLUTION.

Resolved, That we, the members of L. A. 9431, K. of L., composed of miners and mine laborers, do hereby certify that the Missouri screen law, as in operation at present, does give perfect satisfaction in that particular, and we have no desire to see it tampered with in any particular.

JOSEPH MCKEENAN, *R. S. L. A. 9431*.

JOHN JONES, *M. W.*

STATIONARY ENGINEERS.

Complaints having been made to me by stationary engineers, and a desire expressed by them for the adoption of some kind of safeguard, not only on their own account but on account of the general public, I procured the following paper from Mr. D. A. Wise, the local Secretary of the National Association of Stationary Engineers, which very fully explains their views:

TOPEKA, June 30, 1888.

Mr. Frank H. Betton, Commissioner—DEAR SIR: I have been informed that you de-

sire information regarding the stationary engineers of Kansas, in relation to the proposed license and inspection law to be presented to the next Legislature.

1. Why do we want a license law?
2. What benefit will it be to us?
3. What benefit will it be to the steam-users and the public at large?
4. What are our grievances?

The foregoing questions perhaps will cover the principal points of interest to you.

To the first, I will say, to be a competent steam engineer requires years of study and practice, and continuous study after being elevated to a position of responsibility and trust. There are many persons that do not pretend to know anything about the destructive force of steam; they only know it, in a general way, as an agent of power. They have not studied its properties. They say they are engineers. There is no law in this State whereby they can be proven such. They can afford to and do work much cheaper than competent men can afford to work. The competition is unfair, and reliable men are driven from the field. This is why we want a license law.

Second question: A license law will create a tribunal whereby every person claiming to be an engineer must be proven to be such before he can assume the duties and responsibilities that are placed on an engineer. Reliable, trustworthy and competent persons will be able to get situations, and those that are not competent will be obliged to prepare themselves or retire from the field altogether. *This* will benefit the stationary engineers.

Third question: The advantages to steam-users would be many: greater economy in fuel; danger from boiler explosions reduced to a minimum; greater efficiency of their plants; less repair bills, and more work done, and consequently more money made by steadier running, would be a few of the principal advantages derived by the steam-users in general; to the public at large, greater safety from damage to life and property by steam-boiler explosions. Very few persons not directly interested in steam have any idea of the number of lives lost, or the number of persons fatally and seriously injured by boiler explosions. To illustrate, I give below the number of explosions, with the number killed and injured, during 1887, reported to the *Stationary Engineer*, a monthly journal published at Chicago, Ill. This list is by no means complete, as there were many explosions, with their accompanying disastrous results, that were not reported to this journal. For instance, examine the list published monthly by the Hartford Boiler Inspection and Insurance Company. There are found many explosions recorded there not found in the *Stationary Engineer*. The list I give by months, and is as follows:

STEAM-BOILER EXPLOSIONS REPORTED TO THE "STATIONARY ENGINEER" IN 1887.

Month.	Number explosions.	Number killed.	Number fatally and seriously injured.
January.....	30	44	49
February.....	50	55	76
March.....	21	35	30
April.....	10	19	30
May.....	16	26	34
June.....	10	19	23
July.....	16	31	57
August.....	19	9	30
September.....	15	16	41
October.....	10	12	20
November.....	12	59	36
December.....	28	37	53
Totals.....	273	362	473

Comment on this wholesale butchery is unnecessary. Boilers when attended by sober and intelligent persons, persons who understand the properties of steam, do not explode. There are no mysteries about boiler explosions. The chief causes of steam-boiler explosions may be enumerated as follows:

1. Ignorance is the most frequent cause.
2. Whisky or strong drink can be charged with many explosions.
3. Carelessness, as happens when boys or laborers are put in charge of boilers who know but little of the terrible power of steam.
4. Faulty construction and cheap iron; in other words, cheap boilers.
5. Imperfect or unreliable gauges, and no skill to correct them.
6. Overloading safety-valves to carry high pressure, when load exceeds the capacity of the engine.
7. Neglect of safety-valves and other adjuncts that add to the safety of the boiler.
8. Incompetent men in charge, who attempt a business they do not understand.
9. Avarice and ignorance combined that prompts a man to go to a scrap-pile to buy an old worn-out, rotten boiler, that has been painted over to hide its weakness, then set up and proceed to employ an idiot to operate it, for no competent engineer will touch the death-trap.

Here are nine causes that are busy in all parts of this nation rupturing boilers and subjecting people to death, wounds and misery by hot water and scrap-iron. Is it not time the State should step in and direct that this wholesale slaughter should cease?

It may be said that boiler explosions are very rare in this State (Kansas). If they are, it must be remembered that there are not as many steam plants within our borders as in many of the other States; but we have had enough to convince the most skeptic that the "boiler-buster" is here, and quite numerous, too—and the sooner he is checked in his mad career the better it will be for the community at large.

During 1887 there came to the writer's notice the following boiler explosions in our State:

Jan. 9, near Manhattan, a saw-mill. Killed one.

Aug. —, four miles from Cherryvale, a thresher.

Sept. 15, near Salina, a thresher. Killed three and badly injured five.

October 9. Paola railroad pump-house. Man in charge says he "left it" all right. No one killed—and why? No one there.

In July, 1886, the boiler at the "Topeka coal hole" exploded, killed one and injured another.

On Monday night, September 3, 1883, at the Shawnee Mill, Topeka. two boilers exploded, killing one man and seriously injuring another.

A license law compelling every person assuming the duties and responsibilities of a steam engineer to be examined by a competent board of engineers as to his qualifications to assume such duty; providing for a competent boiler inspector, whose duty it shall be to inspect all new boilers before being put in use, as well as all those in use, at least once a year, and oftener, if deemed necessary, certainly would be a benefit to the public at large.

Fourth question: Probably the foregoing would cover all. But to be more pointed: As far as our wages are concerned I hear no complaint. This, however, is not subject-matter for this communication.

The greatest grievance we have is, that it often happens that an engineer deems repairs on his boilers necessary. He has not the authority to order such repairs. The owner puts it off to some future time. Most likely the repairs needed are small, but when not attended to at once, soon become dangerous. What is to be done? Under existing circumstances, the engineer cannot, the owner will not, have the

necessary repairs done then. The engineer is compelled to take the risks and run it, or quit the job. There is no alternative. Every competent engineer will leave a situation, no matter what his salary may be, when the boilers in his charge are becoming dangerous. I do not wish to be understood that this is the case with every steam-user; there are many steam-users that will stop their factories at once when their engineer says that boiler repairs are necessary. But there are enough of the other fellows to make an inspection and license law an absolute necessity. Every fair-minded man will certainly take this view. By all means let us have protection from the damages of steam-boiler explosions.

The following report of the Manchester Steam-Users' Association of England, made in 1870, will show the protective value of steam-boiler inspection, it says: "During the past fourteen years, the Association has issued upwards of 30,000 boiler guarantees, and *not a single person* has been killed or injured by any guaranteed boiler. While during the same period there have occurred, outside of its ranks, 791 explosions, killing 1,057 persons."

In connection, I desire to state that the stationary engineers have an organization, and I inclose a copy of our constitution. You will find that the question of wages is *not* discussed at our meetings, neither is any grievance between employer and employé. Our aim is to educate ourselves in our profession, to render each other assistance, when needed, in the discharge of his duties, either by advice or labor. We are opposed to strikes, boycotts, etc. We are trying to make ourselves masters of our profession and instill the feeling that our interests and those of our employers are identical. Very respectfully yours,

D. A. WISE.

CHILD-LABOR AND EDUCATION.

The fostering of educational interests has ever occupied a prominent place in the legislation of Kansas. Governor Robinson, in his message to the "Free-State" Legislature, which assembled in Topeka as early as the spring of 1856, struck the key-note, and our splendid common-school system has developed and expanded with the phenomenal growth of the State. Governor Robinson said: "Education of the people—common-school education—is the palladium of our liberties. Without this, free institutions cannot exist; with it, tyranny and oppression must disappear. A thorough and efficient system of education is a better and cheaper correction and prevention of poverty, degradation and crime than the poor-house, house of refuge, or penitentiary."

Kansas prides herself, and justly, upon her school system; yet beyond the very loose provision found in the Compiled Laws of 1885, ch. 92, sec. 287, wherein it is provided that children between the ages of eight and fourteen shall be required to attend a public or private school for twelve weeks of each year, no plan looking to an enforced system of education has been adopted; and when we reflect that people in large numbers are settling in the State, who, ignorant themselves, entertain no just appreciation of the advantages of an education for their children, it may easily be seen that this law is in danger of becoming a dead letter, more especially when, be-

yond the gratuitous services of the average school director, no person is charged with its enforcement. The State cannot afford to permit one single child to grow up without at least the rudiments of an education. The marvelous growth and development of Kansas is largely due to the intelligence of the masses of her population. Coming mainly from States whose chief boasts are of their free educational advantages—mostly of native stock—these people have moulded her institutions. But we are rapidly gaining a foreign population, a considerable portion of which comes from countries where the class they represent are debarred by stress of poverty and unfortunate worldly conditions from the acquirement of even the smattering of an education, when as children they were forced to labor in the factory or the mine from their earliest years, and who accept the same destiny for *their* children, sacrificing their future to what seems to them a temporary gain in the small wages they bring in. That this statement is not overdrawn, a visit to some of our factories and coal mines will, I think, verify. But the State cannot afford to rear any considerable proportion of ignorant and uneducated citizens. Without an intelligent directing mind, the ballot becomes a standing menace to our institutions. The portals of our school houses stand invitingly open upon every hand, and it behooves us to see that the advantages which they freely offer are fully utilized. Horace Mann, the great public educator of Massachusetts, said :

“Children of 10, 12 or 14 years of age may be steadily worked in our manufactories without any schooling, and this cruel deprivation may be persevered in for years, and yet, during all this period, no very alarming outbreak occur to arouse the public mind from its guilty slumber. The children are in their years of minority, and they have no control over their own time or their own actions. The bell is to them what the water-wheel and the main shaft are to the machinery which they superintend. The wheel revolves, and the machinery must go; the bell rings, and the children must assemble. In their hours of work, they are under the police of the neighborhood. Hence this state of things may continue for years, and the peace of the neighborhood remain undisturbed, except perhaps by a few nocturnal or Sabbath-day depredations. The ordinary movements of society may go on without any shocks or collisions, as, in the human system, a disease may work at the vitals and gain a fatal ascendancy there, before it manifests itself on the surface. But the punishment for such an offense will not be remitted because its infliction is postponed. The retribution, indeed, is not postponed—it only awaits the full completion of the offense; for this is a crime of such magnitude that it requires years for the criminal to perpetrate it in and to finish it off thoroughly in all its parts. But when the children pass from the condition of restraint to that of freedom—from years of enforced but patient servitude to that of independence for which they have secretly pined and to which they have looked forward, not merely as a period of emancipation, but of long-delayed indulgence, when they become strong in the passions and propensities that grow up spontaneously, but are weak in the moral powers that control them, and blind in the intellect which foresees their tendencies; when, according to the course of our political institutions, they go by one bound from the political nothingness of a child to the political sovereignty of a man—then, for that people who so cruelly neglected and injured them, there will assuredly come a day of retribution.”

Communications are frequently received at this office asking if there is any law in force in the State governing the labor of children in factories and workshops. We are compelled to reply that there is no law regulating the employment of children, except in coal mines, where it is provided that no child under twelve years shall be allowed to work, and no child between the ages of twelve and sixteen, unless he can read and write and furnish a certificate from a school teacher, which shall be kept on file, showing that he has attended school at least three months during the year. And it is extremely problematical whether this law is very rigidly enforced. This question of regulating the labor of children in such a way as to best afford them educational advantages, is one that has already forced itself upon the attention of the Legislatures of the older States; and while child-labor has not as yet grown to formidable proportions in Kansas, still it is a subject that well deserves to be considered, and provisions made in time, to prevent its later development.

In Massachusetts, no child under fourteen can be employed in any manufacturing, mechanical, or mercantile establishment unless he has attended a *day-school* for twenty weeks during the year. The truant-officers of the towns and cities are charged with the enforcement of this law.

In Wisconsin, no child under eighteen can be *compelled* to labor more than eight hours a day, and no child under fourteen shall be *allowed* to work over ten hours, and not more than seven months in the year; and no child under twelve years shall be allowed to work at all where more than three persons are employed. The State factory inspectors rigidly enforce this law. In conversation with Mr. Moore, the Assistant Factory Inspector, at the last convention of Commissioners, at Indianapolis, he told me that he frequently had to exercise his authority. If on entering a factory he found a boy whom he had reason to believe was under the prescribed age, he told him to put on his jacket and go home. He said that he always investigated such cases, and usually found the boy's parents earning enough to send him to school if so disposed.

In New Jersey, no boy under twelve and no girl under fourteen years of age can be employed in any factory, workshop, or mine; and no child under fifteen who has not attended school for twelve consecutive weeks during the year. A State inspector is appointed with power to employ two deputies, whose duty it is to see that this law is enforced. It is provided that these inspectors shall have the right of free passage over all the railroads of the State. The titles of these officers are "factory and workshop inspectors," "and it shall be their duty to enforce the provisions of this act [concerning child-labor] and all other laws relating to the sanitary condition of factories and workshops."

In New Hampshire, no child under the age of fourteen years can be employed in any manufacturing establishment unless he has attended school for at least six months during the year. Truant-officers are provided for, to enforce the provisions of this law.

Michigan requires four months' annual schooling for all children under fourteen.

Illinois compels the attendance at school of all children between the ages of eight and fourteen for at least twelve weeks in each year, and inflicts a penalty upon parents and guardians for non-compliance.

New York requires fourteen weeks' schooling per year for children between eight and fourteen, and no child under the age of fourteen can be employed "in any business whatever during the school hours of any school day of the school term of the public school in the school district where such child is," unless such child shall have attended school for fourteen weeks during the year. The New York Commissioner says regarding compulsory education: "The assertion that neither compulsory education nor the law against the employment of children under school age can be enforced, has, by frequent repetition, been too generally accepted as a fact. But that the contrary is true is not without abundant proof; and I have only to direct the attention of the Legislature to the State of Massachusetts to establish the fact that under its system of 'District Police,' or as they are termed in New Jersey, 'Factory Inspectors,' compulsory education has been successfully enforced, and the employment of children in factories practically done away with."

In Massachusetts, a force consisting of twenty men, styled "District Police," are appointed by the Governor, whose duties are to act as inspectors of factories and public buildings. They are to enforce "the various provisions of law relating to the employment of women and minors in manufacturing and mercantile establishments; and for this purpose may enter all buildings used for public or manufacturing purposes, examine the methods of protection from accident, the means of escape from fire, and make investigations as to the employment of women and children." In the discharge of their duties they are to see that the belting, shafting, and gearing are properly guarded; that hatchways and elevators are protected by substantial trap doors, safety-catches, "or such other safeguards as they may direct;" that factories three or more stories in height in which forty or more persons are employed are provided with a sufficient number of outside fire-escapes. Rooms above the second story where four or five persons are employed, shall be provided with more than one way of egress; see that all main doors, both inside and outside, in factories, shall open outwardly, and that "each story shall be amply supplied with means for extinguishing fire." They are also to look after tenement and lodging-houses, and see that sufficient means of escape are provided in case of fire.

As before stated, New Jersey has a Factory Inspector appointed by the Governor, and the Inspector has two assistants. These inspectors have power to enter any factory or workshop in the State, to prohibit the employment of minors who are under the age required by law, or who in their judgment are disqualified, physically, from following the vocation in which they are engaged. They are also required to enforce all laws relating to

the sanitary condition of factories and workshops, and to compel the attendance of children at school as provided by the compulsory education law.

Wisconsin has one Factory and one Deputy Factory Inspector, whose duties are similar to those imposed upon the inspectors of New Jersey and the District Police of Massachusetts. These inspectors are appointed by and are under the control of the Labor Commissioner.

In New York city, the enforcement of the compulsory education law is effected through the board of education. When the act was first passed this board appointed twelve officers to enforce it. They were known as Agents of Truancy, and each was assigned a district. They visited every factory and store in which children were known or supposed to be employed, and left copies of the act. In the year 1883 they visited 24,498 factories and stores. In the State outside the city no special provisions had been made to enforce the law, the chief reason seeming to be that no provision was made whereby the interior cities could raise funds for this purpose. The Superintendent of the Public Schools of Utica, states: "They do not give us any possible way, in this bill, of raising a penny. The money for this purpose should be raised by a tax levy. If it had been so, I believe the law would have been enforced. We must raise money for a specific purpose, and have no right to use a dollar of it for any other purpose. We have the will to enforce the law, but we have no means to do it with."

In Connecticut, a State agent is appointed to enforce the law. In this land of steady habits, the sovereignty of the parent is quietly ignored under certain conditions. Section 7 of the law provides that—

"The selectmen in every town shall inspect the conduct of the heads of families, and if they find any who neglect the education of the children under their care, may admonish them to attend to their duty; and if they continue to be negligent, whereby the children grow rude, stubborn and unruly, they shall, with the advice of a justice of the peace, take such children from their parents, or those who have the charge of them, and bind them out to some proper master, or to some charitable institution or society incorporated in this State for the care and instruction of such children, males till twenty-one, and females till eighteen years of age, that they may be properly educated, and brought up in some lawful calling."

The factory acts of Great Britain are very complete, and are rigidly enforced by officers appointed for the purpose. Under the laws "children" are designated as persons between the ages of eight and thirteen years, and "young persons," when between the ages of thirteen and eighteen years. Every child employed in a factory must attend school. When children are working half-days the schooling must begin the day after a child commences work, but when they are working on alternate days, schooling must begin the day before work.

There is no necessity for schooling on Saturdays. No school hours can be reckoned which are taken before eight o'clock in the morning, or after six o'clock in the evening.

The children must have three hours' schooling every Monday, Tuesday,

Wednesday, Thursday and Friday, all the year round, when they are at school in the morning. The afternoon set must also have three hours' schooling, except between the first of November and the last day of February, when two hours and a half's attendance is all that is required in the afternoon.

When children work ten hours on alternate days, then the school attendance must be for five hours every other day, except Saturday, taking care that the school day precedes the working day.

When the child is employed only half a day, the schooling may follow the employment; but when it works alternate days, it must precede it.

A child must attend school from the date of its first employment, whether it is only a learner or not; and so long as it works only five minutes in a week, it must go to school every half-day or every alternate day, as the case may be, reasonable excuses being allowed. It is a common supposition that if there is no work for a child on any day, that it is not bound to attend school on that day; but this is not so. So long as a child is considered a worker, its school attendance must be as regular as that of any other factory children at the same school.

Reasonable excuses are sickness and death of a near relative, or very wet days, when the school is far distant in country districts, and the ordinary holidays of the school. But staying at home to nurse or run errands, or any other such employment, renders their factory employment illegal.

Children working alternate days must attend school alternate days, except on Saturday, for five hours, between eight o'clock in the morning and six o'clock in the evening, all the year round.

A child may be employed every alternate day except Saturday, for ten hours, but cannot be employed ten hours for two days in succession.

A child must not be allowed to clean any part of the mill-gearing when in motion.

A child must not work between the fixed and traversing parts of a self-acting machine while in motion.

The Federal census for 1880 shows that in Kansas, out of a population of 996,096, 25,503 persons over 10 years of age were unable to read. No State department has as yet made an effort to ascertain the amount of illiteracy, but it is fair to presume that with the large influx of persons of foreign birth the ratio of illiterates has not lessened, notwithstanding the wonderful expansion of school facilities during the eight years that have since elapsed. Kansas now has a population of nearly 1,600,000. With the same ratio of increase she would have about 41,000 illiterates among her population, or over 2½ per cent. In 1880 of the 996,096 people in Kansas, 233,066 were born in the State, 652,944 were natives of other States and Territories, and 110,086 were of foreign birth. Of the 763,030 people coming from other States and countries, 13+ per cent. were of foreign birth.

On March 1, 1885, the population of the State as reported to the State

Board of Agriculture, numbered 1,268,530, an increase during the five years of 272,434. Of this number 103,278 were born in Kansas, 146,567 were natives of other States and Territories, and 22,589 came from foreign countries. And of the total population 336,344 were born in Kansas, 799,511 were natives of the other States and Territories, and 132,675 were of foreign birth. In 1880 23+ per cent. of the population were born in the State, 65+ per cent. were natives of other States and Territories, and 11+ per cent. were of foreign birth. In 1885 the native-born State population had increased to 26+ per cent., while the natives of other States and Territories had decreased to 63+ per cent., and the foreign-born to 10+ per cent. Exclusive of the children born in Kansas during the five years—the percentage of which will naturally increase from year to year—of the men, women and children coming into the States from other States and countries, the foreign element increased about 1 per cent., or from 13+ to 14+. In the very full report of the State Superintendent of Public Instruction for the years 1879 and 1880, tables are given showing the number of children in the State between the ages of 5 and 21 years, the number of these enrolled upon the registers of the public schools, and the average daily attendance for a number of preceding years. From these tables I find that of the 199,986 children of school age in the State for the year 1875, 142,606 were enrolled, or 71+ per cent., and that of the number thus enrolled, the average school attendance was 85,580, or 60+ per cent. That of the children of school age in 1880, (340,647), 231,434, or 67+ per cent. were enrolled, and that the daily attendance of this number was 137,667, or 59+ per cent., a decrease in the five years of 4 per cent. in the enrollment, and of 1 per cent. in the average attendance of those who were enrolled.

At the close of the next five years (1885), we find that the number of persons of school age (5 to 21) has increased to 461,044; enrolled of this number, 334,538, or 72 per cent.; a gain on the percentage of enrollment during the five years of 5 per cent. But the average daily attendance was only 194,325, or 58 per cent. of the number enrolled, a decrease of another 1 per cent. during this period. This may seem a small and unimportant decrease; but the Labor Commissioner of the State of New York, in his second report (1884), finds from the recent report of the State Superintendent of Public Instruction that of the 1,685,100 children in the State between five and twenty-one years of age, only 1,041,089, or 61+ per cent., are enrolled upon the registers of the public schools, and that of this enrollment but 583,142, or 56+ per cent., make up the average attendance. In other words, Kansas had an enrollment in 1885 of 72+ per cent. in her public schools of all the children between the ages of five and twenty-one years, while New York, in 1884, had but 61+; but in the average attendance of those thus enrolled, Kansas had only 2 per cent. more than had New York, or 58+ to 56+; and yet the New York Commissioner comments as follows:

“This means on its face that 644,011 of the children of the State of New York,

whose expenses for a common-school education are paid by the State, were not found in the school-rooms during the official year upon which this report is founded. It means that the average daily absence from these school rooms was 1,107,958."

And yet this "average daily absence" was not very much greater than was that of Kansas. New York had 1,685,100 children (5 to 21), and 583,142 were regular in their attendance at the public schools. Kansas had 461,044 of corresponding ages, of whom 194,325 were regular scholars. The Commissioner quotes: "It is impossible for the mind to contemplate the terrible import of these figures. They are so astounding as to seem almost incredible." The Commissioner next goes on to quote the State Superintendent as showing the other side of the picture. He says: "It is not to be inferred, however, that this large excess (644,011) represents the number of children in the State growing up in ignorance, without any of the advantages of common or other school instruction. It includes a large class of persons in attendance in the various universities, colleges, incorporated and private academies and seminaries, under instruction in select schools, in families, and in many classes of art, commercial trades and other technical and industrial schools. It also includes a large number of persons of both sexes under twenty years of age, who, having in previous years gone through a complete or partial course in the common schools or higher institutions of learning, have already engaged in some kind of business, and many others who are only temporarily out of school, and whose names will hereafter reappear on the school registers. What may be the relative proportion of such persons and of those who are in fact growing up to maturity without having attended the schools at all, there are no means within the reach of this department for making even an approximate estimate." Upon which the Commissioner remarks: "It is well to give the best coloring possible to this state of things, very bad at the best. But it is proper to remark that teachers and school officers usually endeavor to put the best side out." And he then goes on to say:

"The youth of the State are a precious and serious charge upon the State. The responsibility of caring for them rests upon the adult citizens.

"The State, for its security and advancement, needs the service of its youth as soon as they are ready to perform it. It demands this service, and this oftentimes under exacting laws, accompanied by pains and penalties for non-performance.

"During this minority they are supposed to be preparing for the duties and activities of the future under the protection and encouragement of the State. They are to be trained by their parents or by teachers who are provided by the State to do what parents cannot or will not do otherwise.

"If parents have been properly educated, and are living and in suitable condition of body and mind, it is presumed that their natural affection will prompt them to provide for the proper training and care of their children. If by reason of death or any incompetency or neglect of parents, these children need care and protection, it is the duty of the State to step in and provide for them.

"Unless the State attends to the duty, it will soon be called upon to provide for these neglected boys and girls in almshouses, hospitals, asylums, reform schools and penitentiaries. They often drift about for a season, the dread and terror of society,

among beggars, tramps, and other filthy and dangerous classes; or, prematurely broken down, they early go down to the grave, a loss to the State of all the wisdom, grace and strength they might have given to it.

"These remarks are naturally suggested by the statistics before us, and they ought to be suggestive of our duties as citizens and law-makers.

"Does any one call in doubt these statistics? They are the best authority we have for investigation. They are made up by our trusted public officials; and they will be sustained by the observation of the intelligent.

"That an immense army of uneducated and undisciplined children is growing up among us is shown, not only by the State and United States statistics, but by the general observation of men interested in the welfare of children, the widest diffusion of education and the perpetuity of our free institutions. The terrible fact is further revealed by the incontrovertible evidence of the organization and condition of our schools."

The New York Commissioner submits the school report of Albany in detail, because, as he says, "it is the capital of the State, and because it is believed that its school facilities and its school supervision and instruction compare favorably with those of other cities of the State." From the figures he submits we learn that of the 13,914 children enrolled in the public schools of Albany in the year 1883, the average daily attendance was 9,059, or about 67 per cent. To instruct these children 240 teachers were employed, at an expense for salaries of \$145,854.84, or an average of \$607.72 each. The pupils averaged to each teacher—of those enrolled, 58—in actual attendance, about 38.

Topeka is our State capital, and from the Report of the State Superintendent for 1885, these figures are taken:

Enrollment, 4,657; average daily attendance, 2,944, or 63 per cent. Sixty-one teachers were employed, whose salaries amounted to \$27,195.84, or an average of \$445.83. The pupils averaged to each teacher—of those enrolled, 84—of those in actual attendance, 53. It will be seen that the daily attendance on enrollment was greater in Albany than in Topeka, but that the teachers in Topeka taught more pupils for much less money.

I have selected New York as probably the best basis of comparison with Kansas, because it is one of the older States, (the most populous of all,) and because it contains the largest elements of a foreign population, and reveals a greater contrast of affluent wealth and grinding, debasing poverty than does any other State in the Union. With the rapid growth of manufacturing establishments in the State, and the constantly increasing opportunities for the employment of children thereby presented, it seems proper that the protection afforded to children employed in coal mines should be so extended as to embrace those engaged in manufacturing, mechanical and mercantile establishments. It will be observed that in some of the States from whose school laws I have quoted the State regulation stops when the child shall have arrived at fourteen years of age, and the period of the prescribed annual schooling is fixed as in Kansas, at twelve weeks. This is the case in Illinois, Ohio, and Vermont. Maine requires

that employed children shall attend school for at least three months of each year between the ages of twelve and *fifteen*. New Jersey, practically the same. New York's limit is fourteen years, but requires fourteen weeks' schooling. Massachusetts also stops at fourteen, but requires twenty weeks' schooling; while New Hampshire, up to the same age, requires six months, and from fourteen to sixteen, not less than twelve weeks annually.

Whether twelve weeks' annual schooling between the ages of eight and fourteen is a sufficient foundation upon which to build the superstructure of good citizenship, is at least questionable. Of course a man may be a good citizen and never have seen the inside of a school-house—possibly specimens of this kind may be found in very many of our communities; but if this result is the rule and not the exception, then our magnificent school endowment might as well be diverted to other channels and our school-houses closed. Our public schools in our cities and towns rarely have less than a thirty-two weeks' session, and in the country districts twenty-eight weeks. Would it not be better to require all employed children to attend school at least twenty weeks of each year until they reach the age of fourteen, rather than as the law now reads regarding the schooling of children employed in our coal mines, who are required to attend school for at least twelve weeks annually up to the age of sixteen? No general law was ever yet enacted capable of equitably meeting all cases affected by it. Occasionally boys may be found even less than fourteen years of age possessing a fair common-school education, and circumstances may arise compelling them to seek regular employment of such a character that their school days must permanently end. On the other hand, it may be said that boys who are required to help their fathers in coal mines can, owing to the nature of their vocation, better afford to spend twelve weeks annually in the school-room up to the age of sixteen, rather than the longer period ending at fourteen, but I think that as a general rule, the boy whose education is limited to three months' schooling during his younger years, adds very little to his store of book-learning during the last two years of his limited privilege.

In the "good old days" in the rural districts, when the "big boys" came to school winters and "the master" was barred out with all the ancient forms and ceremonies, the waters of the Pierian spring were not greatly disturbed by their libations, and the progress and discipline of the school, as a general rule, was retarded by their presence; at least, if memory holds true, that was my personal experience as one of the "small boys" during that far-away period. It may be urged that these country schools of forty years ago graduated the men who have developed this section of our country and caused the desert to blossom like the rose, but I doubt if there is a community in the State of Kansas that would consent to return to the primitive methods then in vogue. We have furnished better educational facilities for our children, and it behooves us to see that these facilities are fully utilized.

The New York Labor Bureau's report for 1884, from which I have

quoted, made an extensive examination regarding the educational growth of children employed in factories, and the standard of intelligence of such children. Many of the employers of these children were interviewed, and some very interesting statements were made. Reports and opinions gathered from prominent educators throughout the State are also published, and one conclusion at least is easily reached from a perusal of these contributions, and that is that the minimum annual period of schooling required by law should be increased to at least twenty weeks; (Prof. Robb, Superintendent of the Public Schools of Cohoes, says 28 weeks.) One of the oldest principals of public schools in New York city writes as follows:

"The school year is limited to forty weeks. If the children from eight to fourteen years of age attend only fourteen weeks, that would give them but two school years and four weeks, or eighty-four weeks in all. By keeping up their studies and graduating regularly they could not pass out of the primary department. But where it is broken into, and so long an interval elapses between their attendance, they make very slow progress."

In concluding, the New York Commissioner indorses the Massachusetts law, and recommends its adoption.

As I have quoted quite extensively from the State police report of Massachusetts in connection with the weekly-payment law, it may not prove uninteresting if I repeat what the inspectors have to say regarding the enforcement of the law regulating the employment of children. Inspector Dyson (Worcester county) says:

"During the past year I have had no occasion to enter prosecutions for the employment of children under sixteen years of age. In fact it is rare to find children under fourteen employed, though in many cases one would be apt to doubt their age, judging from their size; but certificates signed by the school committee are kept on file."

Inspector Dexter, of the Bristol-Barnstable district, throws some light upon this subject of school certificates, and possibly accounts for the small size of the fourteen-year-old children mentioned by Inspector Dyson. He says:

"The law respecting the non-employment of children under a certain age not having a proper school certificate is well lived up to, every employer seeming to recognize the importance of a strict enforcement of this law; still this law is violated to some extent, and I do not see any way to prevent it. One of the most common ways practiced to evade this law is this: There are many poor people with large families of children, some of them being under fourteen years of age, who are anxious to have them at work as soon as possible, and no doubt need their small earnings, who sometimes use a little shrewdness in order to obtain a certificate for a child of fourteen years.

"It is done by the parent of the child for whom a certificate is wanted taking some child of that age to the superintendent of schools and represent it as being the one for whom the certificate is wanted, and giving the name of the child who is expected to use it. When such a case is discovered the child is sent out to school; but it is of rare occurrence to find a child fourteen years old who cannot read and write."

Inspector Buxton, of the Hampden and Hampshire District, says:

"The law requiring all who employ children under sixteen years of age to keep a certificate on file certifying to their age and school attendance, has been carefully complied with in all respects."

Inspector Coon, of the Boston District, seems to have found a slightly better condition of affairs. He says:

"An examination as to the employment of children under sixteen years of age was gone into very thoroughly a short time ago. I personally visited several hundred stores and workshops, and required those who had not, to provide themselves with proper school certificates of all children employed under that age. Later, the school committee of Boston required the truant-officers, comprising a force of seventeen men, to make a thorough canvass of the city, which they did, taking the name, age and residence of every child employed under sixteen in all the manufacturing, mechanical and mercantile establishments. The result was that only 2,288 were found at work; many of these lived in the suburban cities and towns. Of this number, but 408 were under fourteen; most of these were legally employed. I think this record is remarkable when we know that there are over 55,000 children under sixteen attending the public schools of Boston. In other parts of my district there are but very few employed in any capacity. No general opposition to this law is manifested, but the constant change in business results in some being ignorant as to its requirements. I have been obliged to prosecute two merchants for persistently employing children without the necessary school certificate. Hereafter the truant-officers will, as I am informed by its chief, make investigation from time to time in the various establishments as to their employment; and I wish to state further, that among all the children found employed, not one have I found who could not write, except in cases where the child was of foreign birth and as yet unable to speak the English language."

Inspector Chadwick, for Berkshire and Franklin counties, says:

"I will now refer to section 3, chapter 48 of the public statutes. In this law I find nothing to prevent a parent or guardian making a false statement in regard to the age of a child in the procuring of a certificate under which it may be employed. And in looking over some of the mills and finding so large a number of diminutive boys and girls, whose certificates denote that they are fourteen years of age, I am inclined to think that some deception may have been used in the procuring of them. I find that in only few towns do the truant-officers pay any attention to it; also, that even school committees do not always exercise as much care as they should.

"The inspector may have doubts as to the age of a child, but the production of the certificate must be taken as conclusive proof, whether such certificate was procured by the false statement of the parent or the carelessness of the party who issued it. I have endeavored to remedy this, and have succeeded to some extent."

In concluding this chapter it may be proper to review what Kansas has done in compliance with the demands of organized labor, and to compare these demands, as enunciated by probably the strongest society ever yet established in the interests of labor, with what has already been granted by the Legislature of the State. In 1884 the General Assembly of the order of Knights of Labor convened in the city of Philadelphia and formulated a platform and declaration of principles. In this declaration of principles the following "demands" were made upon the Legislatures of the several States:

1. The establishment of bureaus of labor statistics, that we may arrive

at a correct knowledge of the educational, moral, and financial condition of the laboring masses.

2. That the public lands, the heritage of the people, be reserved for actual settlers—not another acre for railroads or speculators—and that all lands now held for speculative purposes be taxed to their full value.

3. The abrogation of all laws that do not bear equally upon capital and labor, and the removal of unjust technicalities, delays, and discriminations in the administration of justice.

4. The adoption of measures providing for the health and safety of those engaged in mining, manufacturing, and building industries, and for indemnification to those engaged therein, for injuries received through lack of necessary safeguards.

5. The recognition, by incorporation, of trades unions, orders, and such other associations as may be organized by the working masses to improve their condition and protect their rights.

6. The enactment of laws to compel corporations to pay their employés weekly, in lawful money, for the labor of the preceding week, and giving mechanics and laborers a first lien upon the product of their labor to the extent of their full wages.

7. The abolition of the contract system on National, State, and municipal works.

8. The enactment of laws providing for arbitration between employers and employed, and to enforce the decision of the arbitrators.

9. The prohibition, by law, of the employment of children under fifteen years of age, in workshops, mines, and factories.

10. To prohibit the hiring out of convict labor.

11. That a graduated income tax be levied.

The first demand was complied with by the establishment of this Bureau, in 1885.

The second was antagonized by the constitution of the State, which provided in its bill of rights that “no distinction shall ever be made between citizens and aliens in reference to the purchase, enjoyment or descent of property.” The amendment adopted at our late election, providing that the rights of aliens may be regulated by law, has, however, given the Legislature power to act in the matter.

The third generalizes too much to be answered concisely, but it may be stated that, in 1886, a law was enacted exempting three months’ personal earnings of a debtor from garnishment where such earnings were required for the support of the debtor’s family. And upon the simple affidavit of the debtor to this effect, the court is bound to release all moneys withheld under such process. It cannot be charged that unjust technicalities, delays, and discriminations against the laborer in the administration of justice abound in our Kansas statutes.

Regarding the fourth, in 1883 the Legislature enacted a law looking to

the safety of persons employed in mines, and this law was amended in 1885; and it is safe to predict that in the near future equal provision will be made looking to the safety of persons employed in the manufacturing and building industries. Railroads are now by law made liable for injuries to employes received through incompetency or carelessness of coëmployés.

Answering the fifth, it is only necessary to state that under our general incorporation law every labor organization in the State can become incorporated by simply filing a copy of its charter in the office of the Secretary of State. Upon application to that officer a blank will be forwarded, which only requires to be properly filled out and returned, to accomplish this result.

In addition, the Legislature at its last session, in 1887, passed a law to encourage coöperative societies—a copy of which will be found upon page 319 of the Third Report of this Bureau—by which it was provided that twenty or more persons may organize and incorporate a coöperative society, and that such society shall enjoy all the rights, privileges and powers conferred by law on other chartered companies, and that each shareholder shall have but one vote irrespective of the number of shares such shareholder may own.

The sixth asks for weekly payment of wages by corporations. This demand was indorsed by the Republican party in its late State convention, and it remains for the Legislature to act in the matter. Regarding the second demand in this section, it may be said that mechanics and laborers have long had in this State a first lien upon buildings, etc., which they have aided to erect.

The seventh demand has not yet been granted. The contract system on State and municipal works still prevails.

Of the eighth, it may be said that a law providing for a method of local arbitration between employers and employes was enacted in 1886. This law, however, did not go so far as to say that the decisions of the arbitrators should be enforced, as doubts were entertained as to the legality of a law providing for compulsory arbitration.

Answering the ninth, our mining law prohibits the employment of children under twelve years of age, or under sixteen unless they are able to read and write and furnish a certificate from a school teacher that they have attended school for at least three months during the year. It is the hope of the Commissioner that this law may be extended to include children employed in workshops and factories. As to the tenth and eleventh, the hiring out of convict labor under contract is permitted, and the State has taken no action in regard to the levying of an income tax.

To recapitulate, it may be said that the first, third, fourth, fifth, sixth, eighth and ninth demands have been wholly or in part complied with; while it is highly probable that way will be made in the direction of at least a partial compliance with the second in the near future, and possibly with the

seventh and tenth. The eleventh, requiring the levying of a graduated income tax will probably not soon meet the approbation of our law-makers, but there is good reason to believe that additional legislation will be had bringing the fourth, sixth and ninth into full accord with the "demands" made by the Knights of Labor, thus complying wholly or in a great part with ten out of eleven of them, a record that will compare favorably with any of the other States of the Union.

PART 2.

INDUSTRIAL EDUCATION.

The subject of industrial education is one that is engaging the earnest attention of not only very many of our labor reformers, but of some of our most advanced educators as well. The time has passed, even in our highest educational institutions, when the culture of the mind alone is attempted, and the body left to its own devices—when the prize student is he who has proven most proficient in the “dead languages,” and whose best claim for deserving well of his *alma mater* is the possession of a bulging brain and a puny body. Gymnasiums, and boating, and base-ball clubs have now long been established institutions, even of the venerable “Harvard;” and well-developed biceps, it has been discovered, are not utterly incompatible with a well-balanced brain. Is it too daring a prediction that opportunities will in time be given, even in the ancient and precedent-laden “Harvard,” to develop the latent possibilities of the student’s hand, as well as of his brain, and that he may be brought to use the hammer, the compass and the saw quite as efficiently as he now uses the oar and the bat?

The tremendous changes wrought in the world’s industrial and commercial systems during the last half-century have virtually rendered the old-time forms of apprenticeship impossible. The chief factors in creating these great changes in our methods of commerce and of mechanics have been the utilization of the powers of steam and electricity. When Dr. Franklin succeeded in drawing the electric spark from the thunder-cloud to the end of his kite-string, and Boulton and Watt completed their first steam engine, the change began which has continued with ever-increasing momentum to the present hour, and the end is not yet. The old intimate social relations existing between master and apprentice—the growth of centuries—has suddenly ended. Large manufactories have taken the place of small workshops. Employers as a class have ceased to be workingmen. Many, if not most of them, are unfamiliar with the mechanical part of their own business. They are graduates of the counting-room and not of the workshop; they know the value of their commodities when placed on the market, the cost of raw material, of labor, and of transportation. Probably they could give the old-fashioned “master” valuable points as to the

exact cost in all of its details of placing any given finished product upon the market, from a needle to a locomotive, and from a spool of thread to a case of calico; but place them at the forge or the loom of their own establishment, and expect them to produce with their own skill of hand even the simplest parts of any of these products, and the result would in a majority of cases be a complete failure.

Among the older establishments probably the men who founded the business understood all of the mechanical details; they were graduates of the forge and the loom; they had been apprentices and served their time, and were practical weavers and blacksmiths; they probably knew little, if anything, of commercial book-keeping, or the details of the counting-room. But with their sons and successors the case is different. They have graduated into the counting-room; it is the exception rather than the rule to find any of them who have taken a thorough course in the factory or the workshop. The hand has gradually become divorced from the brain. Skilled foremen and old workmen, some of them grown up with the business, look after the mechanical details, but the favorable or unfavorable results are carefully figured out in the office. Realizing as we must, that in mechanics the machine has supplanted, to so large an extent and in so many directions, the work of the hand, and that the majority of boys of the present day, even when nominally apprentices, are simply the tenders of one of these substitutes for hand labor, we find that we are gradually developing a class of specialists who may be able to operate their particular machine successfully, but put them on another, even in the same shop, and they are utterly lost regarding its management.

In view of these facts, the subject of manual training, the education of the eye and the hand, is beginning to prominently attract public attention. Its processes are as old as our civilization; its results are witnessed in the exquisite metal-work, shown in the cathedrals and the palaces of Europe, and in the fabrics preserved as the heir-looms of former generations. The training of the hand to accomplish in permanent results what the brain conceives and plans, is as important to-day as it was hundreds of years ago.

Education is defined as "the cultivation of a just and legitimate familiarity betwixt the mind and things," but Herbert Spencer, arguing from this text, asserts that, "That which our school system leaves almost entirely out, we find to be that which most nearly concerns the business of life. All our industries would cease were it not for that information which men begin to acquire as they best may, after their education is said to be finished."

Forty years ago Emerson supplied the text from which the modern advocates of manual training are now preaching their most forcible lessons. "We are," he said, "students of words; we are shut up in schools and colleges and recitation-rooms for ten or fifteen years, and come out at last with a bag of wind, a memory of words, and do not know a thing. We cannot use our hands, or our legs, or our eyes, or our arms. In a hundred high schools and

colleges this warfare against common sense still goes on." The philosopher struck a responsive chord in the heart of the practical man. Men and women interested in education begin to ask almost simultaneously, "Why is it that we are teaching the children nothing but books? They are blinding their eyes with poring over print and coming out of school no better fitted to get a living than when they entered it." The thought of the first reformers was that children should actually earn their bread and butter while familiarizing themselves with the three R's, or at least should put themselves on a direct road to self-support. An effort to work at trades, or at least to teach trades thoroughly in the schools, was the result.

For pupils above 14, with the elementary education already complete, the new idea has borne better fruit even than had been hoped for; and the multiplication of technical institutes, industrial and agricultural colleges, which within the past few years have been springing up all over the country, testifies to the strong hold which the practical element of education has taken upon a practical age. The New York trades schools are educating a generation of skilled mechanics; the Woman's Institute of Technical Design in New York is turning to practical bread-and-butter account the feminine talent that has wasted itself on "fancy" work and idle "sketching;" the manual-training schools of St. Louis and Chicago are giving lads practical training in forging and machine-shop work, the study of machinery, and the management of engines and boilers. It is coming to be conceded that there is too much training of men to get a living by their wits and not enough to enable them to earn a livelihood by their hands, and there is even a prospect that in time the old dignity of the right arm may so reassert itself that the actual producer, the maker, if it be of the simplest article, shall stand upon a higher level than the clerk who simply transmits.

But there is growing to be a distinction between technical or trades schools, where the design is to teach particular trades and simple manual training, where the purpose is to instruct boys in the use of tools and in the fashioning and properties of wood and iron, as will be more clearly shown further on in this chapter.

The modern manual-training school is the immediate outgrowth of the idea of object-teaching which led to the establishment of Froebel's system of the kindergarten, and without this continued training of the hands in connection with mental development, the kindergarten is incomplete. The something to do which is the immediate necessity of nine-tenths of our school-children, and for which all their years of ordinary schooling fail to equip them, finds its solution in the manual-training school, and it is gratifying to know that these schools are already accomplished facts in Russia, Germany, England and France, and that twenty-six States in our own country have indorsed the idea in some form, either in the universities, as in Iowa, Ohio, Tennessee and Pennsylvania, or in connection with the public schools, as in Boston, St. Louis, Philadelphia, and some other large cities.

The Iowa Agricultural College was the first to recognize the importance of establishing a "Department of Domestic Economy," thus making it a part of the regular school work, and dignifying this instruction in the art of home-life by the conferring of a degree of "Master of Domestic Economy." The course of study is for graduates of colleges and universities, and extends through two years.

Columbus, Ohio, has introduced manual training into her public schools. Toledo has a "manual-training school" in connection with her high schools, completely equipped for 350 pupils. It is modeled after the Chicago and St. Louis schools, and admits girls as well as boys, who are taught in branches of domestic economy, and it is affirmed that the brightest and most faithful of the high-school pupils are eager to avail themselves of the opportunity for manual training.

Massachusetts was the first State to legalize by statute the new education, placing it on an equal footing with mental training, and a few years ago Connecticut followed with a similar statute, which is as follows: Section 1 of chap. 44 of the Public Statutes, relating to the branches of studies to be taught in public schools, is amended by striking out the words "and hygiene," and inserting the words "hygiene and the elementary use of hand tools; and in any city or town where such tools shall be introduced, they shall be purchased by the school committee at the expense of the city or town, and loaned to such pupils as may be allowed to use them, free of charge," &c.

To so much as catalogue the cities and towns which have already adopted some form of manual training as an integral part of their public school system, is beyond the limits of this chapter. In Philadelphia, which was early induced to move in the matter by the efforts of Charles G. Leland, the sewing lessons begin with the A B C, and are carried through every grade of the public schools. In the Industrial Art School and the Manual-Training School of that city, the children from the public schools are taught drawing, freehand and mechanical designing and modeling, wood-carving and carpentry, metal-work, and the use of tools. Some of the specimens of joining executed by little people under fourteen years are so neat and so exact that it is difficult to realize that it is only intelligent training, and not eyes abnormally true and hands unnaturally steady, by which such results have been accomplished. In Boston, sewing and drawing are taught in all the public schools, and the children are healthfully rested and refreshed when tired of copy-book and grammar by lessons in cookery and carpentry, in the North-Bennett Street and Heminway Schools, and in the Latin School. In Baltimore, the Manual Training School provides thorough instruction in drawing; and in Jamestown, N. Y., industrial education has been cordially adopted as a regular part of the public-school course. The branches taught include, as a rule, industrial drawing, sewing and carpentry. And this manual-training course is as carefully graded as are the arithmetic classes. Cooking, cutting and fitting to girls, printing to boys,

typewriting and shorthand to the older pupils of either sex, are also taught. Clay modeling and casting in plaster are introduced with success, especially in New Haven. So far from interfering with instruction in other lines, the new system, wherever introduced, has so thoroughly awakened the interest of pupils, and has proved such a relief to the wearisome iteration of the school routine, that in addition to its direct benefits it has actually raised the average of scholarship in other branches.

New York and Brooklyn have as yet made little headway toward introducing manual training into their public schools, but interest in the matter is daily increasing. In New York, the Industrial Education Association has been for some years vigorously at work, and besides establishing and maintaining a training school, with classes in industrial drawing and clay modeling, cooking, sewing, domestic economy and kitchen garden, is looking forward to the speedy introduction of the new education into many of the charitable institutions of the city. The Children's Industrial Exhibition, held under its auspices, has proved so thoroughly successful that orphan asylums and reformatories are sending women into its training school to be fitted as teachers to introduce the work into their institutions. A special committee of the Association has developed into the Industrial Education Association of Hoboken; and a similar committee in Brooklyn may be expected to do so ere long. The New York organization has an excellent backing, and counts among its members and cordial sympathizers President Barnard of Columbia College, Chauncey M. Depew, Abram S. Hewitt, Theodore Roosevelt, Mrs. J. C. Croly ("Jennie June"), and a large number of society women, such as Mrs. Courtlandt Palmer, Mrs. Levi Morton, and others. It is a young society, and only fairly under way; but its influence already promises to be wide-reaching.

In Brooklyn, as in New York, the movement is as yet chiefly confined to the charitable institutions. The Brooklyn Orphan Asylum, the Howard Colored Asylum, and the Home for Destitute Children have come to see that no better service can be rendered to avoid the risk of their becoming so thoroughly institutionalized as to unfit them for practical life, by sending them out into the world with such a knowledge of its various handicrafts as shall make them useful citizens, and provide a reasonable guarantee against a relapse into pauperism and vice.

The upper story of the ordinary city school-house, the nearest approach to the country attic, is the apartment oftenest utilized for the training class when no special or expensive provision for the experiment can be considered, and it answers well every practical purpose. One of the first requisites is a good light. Next comes a generous outfit of workman's benches, good two-inch plank on strong, firm trestles. A certain amount of shelving is required, and a place to put away half-finished articles. Nothing more is needed except a simple outfit of tools for the different sorts of work to be undertaken. In the Latin School building, Boston, for instance, the car-

penters' shop is provided with a rule, try-square, hammer, jack plane, joiner, smoothing plane, bit stock, bit, mortise gauge, mallet, chisels, chalk reel, rip saw, panel saw, screw-driver, brad awl, files, oil can, oil stone, and bench hook, to every work-bench set up. With this outfit in readiness, members of each class as they enter, put on their big carpenters' aprons with a ready air wholly different from that with which some of them take their school books from their desks, and soon the shavings begin to fly, the clean smell of the wood is in the air, the teacher, himself a practical carpenter, moves from bench to bench inspecting each step of every boy's work, and the same order and regularity are observed as in the class-room, with far more alacrity and willingness.

One of the first lessons learned in an industrial school is that the inability to do anything well is the cause of most of the poverty and much of the crime in the world; hence, to give industrial training, with all its invigorating and educating influences, to those who are both willing and young enough to learn, becomes the first aim of the work. The North Bennett Street (Boston) Industrial School, incorporated in 1885, is one of the most successful of its class yet organized. In this school it is intended that the Superintendent shall stand in the relation of a friend, not only to the pupils, but to all who may apply. To give that help to the community which shall act as a preventive of some of its worst evils—in other words, to teach a generation how best to carry its own burdens, by the natural and intelligent development of its own God-given powers, is the first object of the work. There are in this school forty classes of girls and boys between the ages of 9 and 16 years, who are sent from the public schools to this building for instruction in carpentry, printing, shoemaking, clay-modeling and cooking. Each class comes for two hours a week, during school hours and under school discipline. The hours are from 10 to 12 A. M. and from 3 to 4 P. M. In addition to this are volunteer classes in some of these departments on certain afternoons of the week from 4 to 6 o'clock. The whole number of pupils found in these different departments during each week is about 600. Some of these pupils are from the School for the Deaf. They highly prize this opportunity, and to them the training is of especial value.

On Saturday, both morning and afternoon, there are classes of girls in sewing and dressmaking. On five evenings of the week, classes of young women, who are otherwise occupied during the day, are taught to cut dresses and other garments by chart measurements. These pay a small sum for their lessons, and there is a constant demand for places in these classes. This department is in the hands of a very efficient teacher, and the results are practical and satisfactory. The carpenters' shop has been refitted with separate work-benches for twelve boys, provided with good tools, and a teacher has been secured who has had valuable training for his work in the Institute of Technology. The work of this department is now, for the

first time, established on a scientific basis. It is thorough and progressive, beginning with the first principles of construction, taught with the least possible waste of material, and going on by regular steps to lathe-work and wood-carving. Here are ten classes of boys weekly, and one class of girls. The printing-office is under the care of a teacher who has held the position for a number of years. This is one of the most popular departments, and both boys and girls have found remunerative employment as a direct result of the teaching received here. The execution of order-work, in great variety, is possible, without detriment to the instruction, and aids materially in making this department partially self-supporting. Here are thirteen classes a week.

The shoe shop is in the hands of a thorough workman, and one who is sincerely devoted to the work. As the course of instruction involves the use of much expensive material, which can be utilized to fill orders for good work at moderate prices, outside orders are solicited. Assistants are employed, to prevent neglect of the educational side of the work. There are thirteen classes a week in this department.

The cooking school has been reorganized on a wholly new basis. It has been fitted up in such a manner that each pupil has a separate gas stove and cupboard for utensils. Each pupil is responsible for her own utensils, and works out her own receipts, which include, among other things, the making of nourishing soups.

Speaking of this school, Professor Woodward, of the St. Louis Manual-Training School, says: "I do not recommend manual training because it is cheap, nor because it will result in the immediate saving of money. In the long run it will save much money, but its establishment and maintenance are expensive." He also adds: "Without going into the perplexing questions of labor and capital I feel sure that the only way to prevent such conflicts in the future is to properly train the children of the present generation. The men who make up mobs are deficient in either mental or manual training. They never had a chance to get both, side by side, in a public or private school."

Prof. Alexander Johnston, of Princeton College, read a paper before the Fourth Annual Convention of Chiefs and Commissioners of Labor Bureaus, at Trenton, N. J., entitled "Common Schools and the Labor Question," in which he used the following language:

"While it is impossible for modern necessities to tolerate the arti-an who is jack of many trades and master of none, there are, I think, principles of a technical education which prepare a boy for no trade in particular, and yet give him the rudiments of any or all of the trades for which his natural capacity fits him. The experiment has been tried, I understand, with success in at least one of the New Haven public schools. It is for such a training that I would prefer the name of a common-school technical training. It would differ from the phrase 'technical training,' as commonly used and understood, in that it would prepare for no special trade or calling. It would be a common-school system, in that it would aim simply to enable any and

all boys to become good mechanics, and to save a very considerable amount of time and waste in apprenticeship.

"So far as this system is allowed to enter and make a place for itself in our common schools, it must be confessed that it would to some extent militate against what I might call education for culture. It would not, in the rudimentary branches of *any* course, militate against it. Reading, writing and arithmetic are very necessary to make a man a good citizen, to make him a good mechanic, and for general culture as well. But as we go above the rudimentary branches the argument disappears. Freehand drawing is hardly a necessity for good citizenship, but may be taken as a study for culture, and as no mean mechanical advantage. But the study of the piano in the public schools, of Latin and Greek, of psychology and etymology, of all the branches which abler and more ambitious teachers love to encourage, and which are yet essential neither to good government nor to the advancement of industry—what are we to say of these? It is a question with some whether they should not be eschewed altogether. Without entering upon that debatable ground at all, and without making the slightest attempt to trench on the studies whose aim is purely the cultivation of good citizenship, it is surely no radical proposition to assert that education simply for culture ought to yield a considerable percentage of the field which it now occupies in our common-school education to an education which shall be technical in its nature, and shall prepare a larger number of our boys to become good mechanics, of wider mental horizon than heretofore, and furnished with a stronger power of self-defense and self-preservation than most trade unions can supply. It is in this way, it seems to me, that our common schools could be made very efficient instruments in removing or simplifying some of the difficulties which now beset the labor question."

In direct line with this paper of Professor Johnston's was one read by Prof. Smart, the President of Purdue University (Indiana), at the recent session of the labor bureau commissioners in Indianapolis, entitled "Industrial Education." In opening, Prof. Smart said that one of the most important economic problems with which we have to deal is involved in the question, What shall be done with the American boy? He is, within a few years, to become a tremendously active and effective force that will touch this country in its social, political and industrial relations, and that will in a great measure mould and form its future. What that future will be, depends largely upon the training which this boy now receives. Continuing, Prof. Smart said:

"The difficulties which confront the American boy who wishes to learn a trade are many. He can find employment in a shop or factory in which he may perform rude labor, or in which he may acquire skill in certain hand manipulations, or in which he may become an automatic attachment to a machine. But builders, manufacturers and superintendents are not found now-a-days who are willing to spend time to teach a boy the various steps or processes necessary in the acquisition of a trade. In many of the lines of manufacture, if not in most, competition is so strong and the division of labor has become so necessary, that manufacturers cannot afford to do this.

"The results of the abolition of the old apprentice system have been observed in England and France, as well as in America. I quote from a thoughtful article on this subject recently written by Prof. Sylvanus Thompson, an eminent English physicist:

"Apprenticeship, with its wholesome rules, having decayed in everything but form, the lads who enter the shops are never properly instructed, but are made the drudges of the older workmen. What

wonder that they acquire habits of idleness and carelessness that not only pursue them through the whole of their work, but, worse than this, corrupt and undermine their morals? What wonder that their manipulation is but half acquired, or that the methods and devices they learn to apply are those of half a century ago; ancient relics of prejudice and unscientific 'rules of thumb,' handed down by the tradition of the shops, a veritable survivor of the unfittest.'

"Mr. George Howells, in a very able paper on this subject, speaks as follows:

"But a change was coming o'er the spirit of the dream; another day was dawning fraught with still greater issues to the journeymen, for, instead of the old system of master and craftsman, there grew up quite another kind of mastership and of hiring. The master had already begun to be less the craftsman and more the employer. Instead of the old fealty between master and men there came estrangement more and more, until sometimes the work-people scarcely ever saw their veritable employer. Under these circumstances the conditions of apprenticeship were completely changed, until the apprentice became merely the boy worker, with less wages, but more solemn engagements, than a journeyman. The master to whom he was bound no longer taught him the trade; he was, so to speak, pitchforked into the workshop to pick up his trade as best he could, or to learn it from the many journeymen who were there employed. It was no one's duty to teach him; there was no pay and no responsibility.'

"Prof. Thompson, in summarizing the results of the new system, speaks as follows:

"At the present moment, this tendency to despise a life of honorable manual toil, in straining after a supposed gentility, would be truly pitiable, if the proportions it has attained did not awaken more serious apprehensions. It is an evil not confined to this country alone, but it is known, too, in the great cities of the States, of Germany and of France.'

"Since I speak to a convention of statisticians, I suppose I ought to give you a tabular statement or two. Some months ago I sent out circulars to employers, in some of the industries and in various parts of the country, asking the following questions:

"1. What is the average number of persons that you employ who come to you for the purpose of learning the trade?

"2. How many of these remain with you long enough to become journeymen?

"3. Of those who become journeymen, how many succeed in becoming first-class workmen?

"These were sent to (1) carpenters and joiners, (2) pattern-makers, (3) moulders, (4) blacksmiths, and (5) machinists. From the replies received, and they were numerous, I formulated the following conclusions:

"1. That out of every ten who enter a carpenter shop with the intention of learning the trade, four abandon the business; of ten pattern-makers, two; of ten blacksmiths, six; of ten moulders, five; of ten machinists, six.

"2. Of those who pursue the business and become professed journeymen, but three become first-class workmen; of ten pattern-makers, but two; of ten blacksmiths, two and a half; of ten machinists, three and a half.

"We can thus construct the following interesting table, which shows the number of boys out of every hundred who enter each trade mentioned who become first-class workmen, viz.:

Carpenters.....	18
Pattern-makers.....	16
Blacksmiths.....	10
Moulders	17
Machinists.....	14

"Being an average of fifteen to each one hundred.

"Thus it is that the very process we take to educate a boy into the various handicrafts is the process by which we educate him out of them. It has been claimed by many that the public schools are largely at fault in this matter.

"I again quote from Prof. Thompson, as follows:

"In all the constructive trades the greater part of a workman's instructions are given to him in the form of working-drawings. Yet we suffer the budding artisan to pass through the schools ignorant of

the first rudiments of a science that is as essential to his work as are the four rules of arithmetic. And ought we then to be surprised if, in pursuance of the system we have deliberately marked out for the rising generation, we keep our future artisans, till they are fifteen or sixteen, employed in no other work than sitting at a desk to follow, pen in hand, the literary course of studies of our educational code, we discover that on arriving at that age they have lost the taste for manual work, and prefer to starve on a threadbare pittance as clerks or book-keepers rather than by the less exacting and more remunerative labor of their hands?'

"And again:

"The taste for manual work is imbibed at a very early age, and there is not wanting evidence to prove most distinctly that even a very small amount of manual labor introduced into the elementary school serves to keep alive the capacity for active employment and the manipulative skill of the fingers.'

"While I am not prepared to say that our schools ought to be turned into workshops, or that shop-practice should become an integral part of our school system, I am prepared to say that those who make the courses of study in our schools often forget that the great majority of their pupils must earn their living by manual labor. I am prepared to say also that if every considerable city and town in the country could establish a special manual-training school for its boys and its girls, much of the evil of which I speak would disappear.

"It remains for me to answer this question: What is the result of the experiments that have already been made? I know of no better way of answering this question than by telling you what has been accomplished in the mechanical department of the institution with which I am connected.

"It is the purpose of our school of mechanical engineering to afford young men an opportunity to acquire a good collegiate education in mathematics, science, literature and art, and at the same time to secure instruction and practice in such lines of work as will fit them to engage in the practical industries of life.

"The student has his four years' instruction in geometry, trigonometry, analytics, calculus, physics, chemistry, English literature, history, psychology, political economy, and in modern languages. In addition to this he spends two hours per day for a period of two years in carpentry, wood-turning, pattern-making, moulding, blacksmithing, and in machine work.

"The usual methods of text-book study, recitation and lecture are employed, but the student is required to put into practice, so far as possible, the instruction which he receives. He for example not only receives instruction in regard to the theory and principles of drawing, pattern-making and machine construction, but he is required to make working-drawings himself, to construct patterns, to make the castings in the foundry, to finish and set up the machine, and to operate it when it is completed. This combination of the theoretical and the practical, characterizes the institution.

"During the last two years of his course he spends two hours per day in making plans and designs for machinery, in testing building material, in boiler and engine tests, in dynamometric tests of power, and in advanced experimental engineering; but it is of the work of the first two years of which I wish to speak chiefly.

"Now the average boy will spend three years in learning the carpenter's trade, three years in learning the blacksmith's trade, three in learning pattern-making, three in the foundry, and three in learning to become a machinist. It will doubtless take the average boy ten years at ten hours a day by the ordinary faulty methods which I have tried to describe to you, to master these five trades. Experience shows that 95 per cent. of our boys can produce superior results in all these departments of labor by working two hours a day for the first two years of his college course."

(The President here exhibited a large number of specimens of joinery, pattern-making, castings, forgings, and of machine work, which were closely

examined by all present and pronounced remarkably fine specimens of work. Indeed, this examination proved one of the most delightful features of the convention, and deeply impressed all with the great benefits arising from this line of education.)

Continuing, President Smart said:

"You ask, how is this accomplished? In the first place the boy is instructed in the theory of work; he is taught in respect to the use of tools; he is set to work to do the thing himself under competent instructors; no attempt is made to make money out of him. So soon as he learns to do one thing well, he is immediately set to work on another, involving a higher degree of skill. His ambition is aroused because he discovers that he can very soon learn to do a fine thing. Since he has learned to make and use working-drawings there is an accuracy and a precision about every movement that he makes, and all these things bring the desired result about easily and satisfactorily.

"You ask if what they have made has been put to any practical use. Yes, our boys have made many machines that are now in use in our shops, and have furnished other technical schools with similar appliances. While they spend much of their time at first in doing work which may be called practice-work, it is intended that all may have a hand in making some machine that is put to a practical test."

President Smart here exhibited photographs of a steam engine used to operate the machinery in the College workshops, a cupola furnace used in the College foundry, a forge and a section engine, all constructed to the minutest detail by the students and in the shops of the College. These boys drew the plans, made the patterns, moulded, cast and forged every part of them. President Smart said that the purpose of the College is to teach the principles that underlie all the constructive trades, and to fit the boy to become a designer of machines, a master of construction; in other words, a mechanical engineer. He said that over 90 per cent. of the boys became expert workmen, that they generally stood high in academic work, and that the College gave instruction in wood and iron only, "because a larger number of constructive trades are based upon wood and iron than upon all other materials combined."

In reply to the question, "Do not your graduates enter into competition with workmen who are already in the field?" President Smart said:

"Is it possible that there is a man in this country who is afraid of the competition of his own child? If there is such a one, I think I can give him a good answer. My answer is this: The meanest form of competition which a good workman has to contend with is the competition that comes from a man who has spent little or no time in learning his business, and who therefore produces an inferior job at a lower price. This is the only form of competition which a good workman need fear. If a man does as good a job of work as you do, he will charge a fair price for it. This is not the competition that has evil in it; indeed it is, in a sense, coöperation; at all events it is a good thing, a healthful thing.

"We are trying by our work at Purdue to prevent the destructive competition, and we think we are succeeding satisfactorily. Our graduates receive good salaries, and I am sure that does not have a tendency to lower the wages of other good workmen. We think it is good for the boys to be with us, and a good thing for every one else."

During the session a paper bearing upon the same subject, entitled "Settle the Apprenticeship Question by Inaugurating Industrial Schools," written by T. V. Powderly, was read, in which he said:

"At present it is a waste of time to bind a boy to any particular trade, for the reason that they are all subdivided to such an extent that men are set at work on special pieces on entering the workshop, and remain in that particular subdivision during their term of service. The chief aim of the employer in engaging apprentices is to secure the assistance of cheap help on work that it is not necessary to employ competent mechanics to perform. The opposition of the mechanic to a number of apprentices is that the market may not find too many craftsmen in search of employment; under such conditions wages must have a downward tendency. An apprentice in 1888 does not enter upon the trade as the apprentice of 1858 did. In 1858 the apprentice learned all of the 'arts and mysteries' of the trade, while the beginner of to-day is placed at a machine, and is apt to be kept at it during his entire term of apprenticeship. If he is skillful, and manipulates that machine to good advantage, he is more likely to be of better service to his employer than if he were allowed to take turns at all of the different branches of the trade, but when his term expires he is of but little use as a mechanic, for should he apply to another employer for a situation he may not be lucky enough to find employment at a machine similar to the one at which he served his term, and if he is not so employed he will have to wait until a vacancy occurs, or tramp.

"Ten short years ago we wrote our letter, or, if we were in a hurry, we telegraphed to our friends; to-day we call up the exchange and talk across cities and counties. Soon States will be traversed by the sound of the human voice. To-day we talk into a funnel, and not only are the words recorded, but the very sound and quiver of the voice is faithfully preserved to be repeated as often as may be required at any time during our lives or after our death. We stop and ask, What next? The answer comes with the rapidity of lightning from some quarter of the universe in the shape of a new invention. What has this to do with the American youth? Everything, for we must devote more time to him than heretofore, so that he may not, Micawber-like, stand in idleness waiting for something to turn up. Let us turn it up for him by inaugurating a system of industrial schools in which the arts, the sciences and trades will be taught. Surely the American youth is worthy of the best that we can do for him, and we should encourage him in his first steps that his later ones may be for the good of the nation. At the rate at which science is advancing there will soon be no shoveling of earth, no leveling of hills by hand, no digging of trenches, no cutting of earth, or wood, or iron by hand; all of these things, and all else that enters into the industry of the world, will be done by the aid of science. There will be no trades or tradesmen of any special callings or crafts. In the world's production nothing should be missing, nor should one man have an advantage over another which nature does not give him. We will have men of no particular trade, but all men will know all crafts, not the 'Jack of all trades,' but a far different being who knows all trades well. Every school-room should be a workshop, a laboratory, and an art gallery. At present a trade learned is a trade lost, for the learner has an opportunity to practice but one part of his calling, and if thrown out of that one groove cannot fall into another. Under an industrial system of schooling, every American youth will know sufficient of all trades to step into whatever opens itself to him, and he will not be forced by circumstances to stand in the way of another who is anxious to rise, but will be fitted to take a step forward at a moment's notice. He will always find work to do and will do it more rapidly, with better tools and for a greater reward than the artisan of the present. The unsettled conditions which

now make trades-unionism a necessity will vanish, and in that age there will be but one organization necessary, the fatherhood of God and the brotherhood of man."

In this connection, it may be proper to quote a mechanical expert and an able writer who has this to say regarding apprenticeships:

"The old apprenticeship system is not likely to be revived. The life of the system was the personal supervision of the master, which the lad cannot have again. It may be for the interest of the master mechanic to train good workmen, but it is not his duty. The attempt to teach any large number of lads would be troublesome, even if permission could be obtained from the union. The workmen of the future must learn how to work before they seek employment. All professional men do this. What scientific schools are to the engineer and architect, what the law school and the medical college are to the lawyer and the physician, or what the business college is to the clerk, the trade school must be to the future mechanic."

Fritz Schumann, President of the Dublin Society of Lithographic Artists and Writers, in an address on technical education, delivered in that city before the Saturday Club, quotes Michael Davitt as saying, "It is as singular as it is regrettable that boys must commit some offense against society before society will trouble itself with providing them an industrial training;" and in the course of his remarks, speaking of Denmark, (his native country,) says:

"As far back as 1771, in the Regulations of the Royal Academy of Arts at Copenhagen, we find the following paragraph: 'All our subjects shall be entitled to be taught gratuitously at the Royal Academy. Nobody, whatever his station in life, must be refused admittance. In order that the good taste and the highest foundations of drawing may be spread, not alone amongst the artists, but also amongst those artisans who want a knowledge in drawing, we desire that all trade-masters residing in our Royal capital, and who cannot do without drawing, shall urge their apprentices to visit the Academy diligently.' And the masters did avail themselves of this invitation, for already the next year 291 apprentices received instructions at the Academy, and in four years their numbers had nearly doubled. In 1807 an Institute for metal-workers was founded. The Technical Institute was established in 1843. In 1868 a 'New School for Handicrafts' was opened, and at the present moment Copenhagen, a town of 250,000 inhabitants, has four technical schools. The provincial towns have not been left in the cold, for sixty-eight towns have technical schools. In building such schools no less a sum than 618,000 crowns (a Danish crown being worth about 1s. 1½d.) has been spent during the last six years. All those schools received help, both from the State and the town corporations. When I visited Copenhagen last summer I stopped before a splendid palace—and was told it was the New Technical Institute. To build it the State had helped with 100,000, and the Corporation with 94,000 crowns. This Institute receives every year from the State 20,000 and from the Corporation 10,000 crowns; about 31,000 crowns are received in school-fees; its total receipts last year being a little over 102,000 crowns. Last year 1,971 artisans and apprentices (401 of them free), were taught there by sixty teachers."

Referring to Chemnitz, a place of 200,000 inhabitants, and one of the principal industrial towns of Germany, where hosiery and woven fabrics are chiefly manufactured, Mr. Schumann says:

"In this town, as in all Germany, compulsory education has been at work for many years; no child can leave the schools before fourteen years old. It has three tech-

nical schools. The Higher Weaving School, erected by the corporation, the Agricultural School, and the Technical Institute. This last erected by the State, at a cost of £82,000, and principally maintained by the State. Mr. Falkin, an English manufacturer, residing at Chemnitz, stating that it has destroyed the manufacture of gloves in Nottingham, and is slowly undermining the hosiery trade, asks what it is that has enabled the weaker race to take the bread out of the mouths of the stronger, and to compete with them in the markets of the world? and thinks that the answer will be, to a great extent, in the educational advantages of the people of Chemnitz."

In the New York Bureau of Labor report for the year 1886, the subjects of apprenticeship, manual training and technical institutes are very exhaustively treated, occupying some 400 pages of the book. In his introductory the Commissioner says:

"'Manual training' is not to be, by any means, taken to imply an advanced stage in scientific education. It is only the elementary part of a technical course of study, and as such has been introduced into common schools and other institutions with pretensions to the higher education. It is preparatory, not final. In this sense various thoughtful and far-seeing educators have adopted it and introduced it into the establishments in which they have authority or influence. Massachusetts has recognized its utility as an educational process, and it is making way into the national system. There are also schools in Connecticut, Illinois, Iowa, New Jersey, Ohio, Louisiana, Maryland, California, Missouri, Texas, and Wisconsin; while the system receives very full exposition in Philadelphia, and is extending itself throughout the country. In New York city it is already, as elsewhere stated, effectively introduced at the City College, at the Hebrew School, and at Dr. Adler's School. There is an excellent example of this system at Jamestown, and its adoption is under discussion at other points. The almost universal opinion of all who have taken time to look into the merits of the system is, that it furnishes a partial substitute for the rapidly decaying system of apprenticeship. It is better, indeed, than that antiquated theory, for it puts the boy to work in a way to make knowledge an object of desire and longing instead of the old-fashioned practice of setting the learner to mean chores and personal subservience to journeymen, against which spirited lads revolt and by which they learn nothing.

"It is not expected, nor even wished, that manual training, if introduced, will produce shoemakers or blacksmiths. The present literary system does not turn out lawyers or bank cashiers. The idea is that the children are not as developed or as well fitted for practical life as they may be. Manual training will give them a new starting-point and open the way to a class of occupations, honest and respectable, for which there is now no preparation. We cannot all go behind the counter; let some of us be ready to step forward to the work-bench. Labor is and ought to be accounted honorable. The man who designs the work needs another to help in its completion.

"Nothing perhaps is more surprising to the curious inquirer into manual training results than the ease and readiness with which the boys learn their tool lessons, and become proficient in their use. It is notorious that the boy in the ordinary tradeshop is not suffered to touch tools for a long time. It is charged that he will spoil them, which is true enough, and as the master seldom provides tools for shop use and the journeymen will not lend their tools to be chipped or dulled, the boy gets no chance, and his chief use is to run menial errands and wait on the men. In the training school the tools are for his use. Moreover, he is taught how to poise and wield them, and their purpose is explained by word of mouth and by direct example.

“Superior as we have hitherto been in our public schools for the common people, that superiority is passing into history. Our literary education, so to term it, comes far short of our present needs. The boy who could read, write and cast a column of figures was once a marvel; now, the boy who can do much more is of no particular consequence — girls do a vast deal better. The common-school education as given throughout the country is hardly more than a first step towards bread-winning, and that only in certain callings. For manual-labor trades the boy has to begin at the very beginning. The State is not supposed to know anything about labor; and yet the public school supplies to the average mechanic or farmer the only education he is likely to receive, for he generally leaves school at twelve, with the chance in cities and large towns of attending winter night-school after the day's work is done. The scheme of the public school seems hitherto to have been laid out with a view to rudimentary general knowledge for commercial pursuits, there being no provision for the artisan.

“It does not require much thought to satisfy one's self that whatever calling a man may follow, he will find profit in other branches of knowledge. In large cities, and occasionally elsewhere, under the personal influence of some enlightened man, we find these well-worn bounds overstepped, and a wider field of intellectual endeavor opened to our youth. There is, however, a growing sentiment that public-school education should not be limited to what we call book-learning, but that there should be also some preparation for that labor to which a vast majority in all countries are destined. There is, moreover, an idea that the training of the hand helps to develop the brain power. Probable enough. Nature is many-sided, and it may be doubted whether a full man can be raised by cultivating him in spots.

“Another feature of the public-school education is that the boy is indirectly brought to hold practical mechanics in light esteem and to undervalue the work because the worker is of small account. The pupil in the public school is taught, and most properly, order, neatness, decency of language and manners. He encounters a mechanic with grimy hands and soiled clothes; the clerk, on the contrary, is a model of style and deportment. This has its weight. Had the youth, however, visited a well-ordered workshop, seen work done cleanly, order enforced, and the director and his pupils full of energy and earnestness, not sparing themselves and yet preserving the proprieties, he would think differently of manual labor.

“Let it be distinctly borne in mind that the inquiry now being raised is not whether the public-school education of this great State as usually administered is good for merchants or store-keepers and their clerks, or for professional men who will be finished and perfected at seminaries and colleges, but whether the public school supplies the wants of the artisan, mechanic and laborer whose schooling stops early and whose practical education as a wage-earner usually begins at a very early day, with an undoubted delay of his productive power, and small chance of preferment among hosts of competitors. Education with us is not the privilege of the few, but the right of the many; and the changes in the course of trade and business, in mode of travel and transmission, in our arts and manufactures generally, all point to changes in the methods of education.

“The incalculable influence of machinery as a means of production presents another educational point of view. The man is in danger of becoming the slave of the machine, nay, even the slave of a part of the machine. Possibly a technical education might help us against this.

“The old-style collegiate education rests on the false opinion that all excellence and wisdom lay with the past. Thence the value of classical learning and other secular knowledge taught in colleges, to which, as ecclesiastics were the chief teachers, it was natural that divinity and theology should be added. Education, however,

belongs to the age in which we live, and the spirit of this age is manifest chiefly in 'doing.' Thus it seems expedient that education should include a fitness for 'doing' something. With our enormous strides in applied science, this teaching to 'do' as well as 'know,' seems characteristic of the times.

"It requires no poet or prophet to arise and justify the horny-handed farmer or mechanic; they are the bone and sinew of the land, they are the food-raisers and tax-payers. Nevertheless, an impression has been created that clerical work is preferable and more genteel than manual labor; vast fortunes also are made in commerce and speculation, wherefore it is more profitable to be a clerk than a mechanic, and this prejudice is only to be exercised or modified by the acceptance of manual training. An immediate result of the soft-handed sentiment has been the influx of foreign mechanics by whose skill and training the American artisan is under discouragement in many trades, of which the furniture trade is a cogent instance. In it we find almost a monopoly by German artisans. Unquestionably a great deal of this encouragement is due to their superior skill—the result of education—and their acquired taste, which seems to have become almost an instinct. They are artist-workmen. And yet our born American used to be a world-wide example of mechanical ingenuity. It may be that he still works with his brains more than with his hands. Our reaping and mowing machines, our sewing machines, our telegraph and telephones, our labor-saving and other mechanical inventions, are a powerful example of what Americans can do and have done, from which it is monstrous that they should be diverted by any false pride or mistaken views as to man's best and highest interest and functions. It is not too much to say that the old-fashioned American country mechanic was the best 'all-round man' to be found anywhere. He was chock-full of 'notions;' he could turn his hand to anything and do his work fairly well, not making a botch of it, even if he did lack some of the fine touches that distinguished the specialist's finished output. A certain amount of constructive genius seems, indeed, to have been part of the old-fashioned Yankee nature. Everyone that knows New England at all, knows something of the jack-knife, and what clever things can be done with that simple tool."

Mr. Mitchell, the Instructor at the Girard School, Philadelphia, says:

"The few hours' practice, very rarely over ten and very often not more than three in a week, excite such interest and so fix his attention that the mind acts on the body and the pupil rapidly becomes almost automatic in his work. Strange to say, he does not forget his manual lessons as he does his memorized lessons, but marches, step by step, losing nothing and making progress with a certainty that would be incredible were it not attested by personal observation, as well as by the concurrent testimony of all teachers. This rapidity justifies the assertion that 'it is a great waste of time to spend two or three years in acquiring trade-knowledge that may be gained in twelve or fifteen days, under proper instruction. A fortnight under a competent instructor in a school-shop will produce as much dexterity as a couple of years' apprenticeship in a common trade-shop.'"

To quote again from the introductory to the New York report:

"Looking to the great effort, personal and pecuniary, made to endow and maintain the higher-class education, colleges, normal schools and the like, special or eclectic, one is apt to forget that the common school is at the root and foundation of our national advancement; that the common school is for the masses, and that at least ninety-five per cent of our whole people receive their only education there. If the working-people can be taught how to work, as well as to read and write, it will

be a grand step in their advancement, and will help to set straight some matters that seem to be just now inclined to go crooked.

"There is, at times, a disposition to cavil at the extension of knowledge. 'A little knowledge is a dangerous thing,' says the poet satirist. A half-truth at best, and not always taken in the right sense. The danger lies in the littleness. Better a little of anything intrinsically good than none at all. Is not the danger from ignorance infinitely greater than from knowledge? Manual training in the schools, or the preparation of lads for real life by giving them such a knowledge as they can pick up between seven and thirteen years of age, will scarcely qualify them for the learned professions, or even uplift them to the work of great mechanicians or analysts. It is not a question, however, of schools and colleges for advanced learning and science. Of such we have many, though not too many. What is now under discussion is the free public school for the children of the people, with such additions to the course of teaching and study as will fit the children for changed social conditions.

"It is not an unfair nor an illiberal proposition to assume that the natives of a country have, and ought to have, better chances for success in their own land than the stranger and foreigner, unless the latter is fitted out with special qualifications or advantages. The immigrant skilled laborer has, however, precisely that special qualification and advantage which enables him to beat the native on his own soil. We Americans are second to none in our mental culture; our popular education in that respect has long been a national boast; but foreign nations have caught up with us; they have added technical trade and handicraft to culture, and now the incoming foreigner is ahead of the American. This is not a question of know-nothingism, or of national government, but of ways and means, of bread and meat. The Englishman, before 1851, occupied a very similar position. The exhibition of 1851 disclosed the mortifying fact that the British, with all their commerce, all their shipping and manufactures, were away behind Frenchmen and Germans in all trades that implied art, science, design, or cultivated taste. The British took the hint, encouraged manual training, improved their schools, cultivated taste and gave technique to the artisans. The consequence is, that they are now ahead of Europe; the pupils have outstripped the teachers.

"The College of the City of New York has a strong manual training adjunct to its eclectic curriculum. The course is both theoretic and practical. As students, the boys receive an education in principles, while as possible artisans, they learn the use of tools and their application to materials, acquiring dexterity and facility by actual practice at the forge, the lathe, the anvil and the bench. It is not of necessity that the youth should be destined to the calling of an artisan or laborer; this manual training is incidental to the other work of the college course, and under the rules may be exchanged for another line of study. The mechanical training is so much gained for the future professional or scientist, even if it be not turned to pecuniary profit. The value of manual training is recognized; indeed the conditions of admission to the classes of the seminary require that an applicant shall pass a satisfactory examination in the elements of industrial drawing. The college, in all its departments, is free to all; its management is liberal and the system thorough. The course of workshop instruction extends over three years. In the first year the student learns to fashion wood exactly; to make joints of all kinds; to veneer, finish and polish. In the second year metal-working tools are used. Forging, chipping, filing, soldering, finishing and lacquering are learned, and the use of the lathe is begun. In the third year the use of the slide-rest and the engine-lathe in the making of screws, gear-wheels and other parts of machinery is learned.

"The object of the entire course is to furnish the student with such manual skill,

and such general knowledge of tools and methods of working in the arts in which wood and metal are employed, as will enable him, with study and practice, to master any mechanical profession in after-life. The instruction in the mechanical arts is given either in the regular college course or in a special mechanical course of three years.

"A visitor to the workshop finds a spectacle full of interest. The first objects that catch the eye are the blacksmiths' forges, at which the lads are engaged heating the metal, shaping it, and by actual practice learning to use the hammer, the smith's great tool, with which he has won new worlds. Some of these boys are mere beginners; their practice is rude and tentative; others are more adroit, and seem more skillful and decided in action. At the lathes and benches the same difference between the beginner and the advanced scholar may be observed; but all are in earnest, and take interest in their work. There is a wholesome, business air about the place, too; articles in different degrees of forwardness lie around. It might almost be a real, practical workshop if there were only a little more of what Ruskin calls wholesome, picturesque dirt."

Prof. Love, principal of the public schools at Jamestown, N. Y., an enthusiast on the subject of manual training, and who by his individual efforts has placed the schools of that place in the front rank so far as this branch of instruction is concerned, has written a pamphlet detailing his own views and experience, from which the following extract is taken:

"Nothing stimulates and quickens the intellect more than the use of mechanical tools. The boy who begins to construct things is compelled at once to begin to think, deliberate, reason and conclude. As he proceeds he is brought into contact with powerful natural forces. If he would control, direct and apply these forces, he must first master the laws by which they are governed; he must investigate the causes of the phenomena of matter, and it will be strange if from this he is not also led to a study of the phenomena of mind. At the very threshold of practical mechanics a thirst for wisdom is engendered, and the student is irresistibly impelled to investigate the mysteries of philosophy. Thus the training of the eye and the hand reacts upon the brain, stimulating it to excursions into the realm of scientific discovery, in search of facts to be applied in practical forms at the bench and the anvil.

"The best, the strongest argument to me, and probably of small importance to others, is a knowledge by actual test of the workings of the manual arts in the schools with which I am connected. During a trial of about six years, there has been a constant growth of the department, until now a great majority of the pupils in the schools receive the benefits of the training to some extent, and in the near future we hope to be able to offer to all a full course in the department. While our board of education would not have thought it possible or even wise to undertake to establish a course of industrial education in the schools, they have promptly and unanimously seconded every effort to give the department a permanent place in the curricula, and any effort to displace it, or any way to cripple its operations, would, I am sure, meet with their determined opposition. While the consciousness of having in some degree been instrumental in putting the children and youth in possession of the advantages of this part of an education, affords a better assurance of having done some good than any other work of a limited career.

"In order to actually introduce industrial or manual training into our school system, so as to make it a permanent feature, it should be given a place in the curricula by the side of the other subjects. Thus, in our primary departments,

the three lowest grades, we would have, 1. Language; 2. Numbers; 3. Objects, or things; 4. Manual training. We should remember that we have always had manual training to a certain extent in all our schools; as for example, penmanship is a manual art, so is drawing, and so, indeed, is gymnastics or physical culture.

"In the second departments, or the three grades above the primary, we change numbers to arithmetic, and objects to objective teaching. In the grammar school, the seventh, eighth and ninth grades, we change language to languages, and objective teaching to objective sciences; and in the high school we have, 1. Languages; 2. Mathematics; 3. The sciences; 4. Manual arts.

"In the primary departments, during the first year or lowest grade, we might have, under the head of manual training, block-building, stringing straws, stringing beads, learning colors, tablet-laying, paper-folding, or anything else suitable to the capacity of the pupils. In the second department, say the fifth grade, or second year, we might have under the same head, sewing over and over, crocheting, paper-folding and mounting, and review work, or any other work suited to the capacity of the pupils. In the primary and second departments the boys and girls would be placed in the same class, and do the same work, and the classes organized, called and conducted in the same manner as those in the other subjects.

"But in the grammar and high schools, the organizing and the conducting of the work becomes a little more complicated. A hint of the way, or perhaps better, a way may be briefly given, as follows, viz.: At certain hours each day send as many boys as can be accommodated, to the shop. They should go at least twice a week for one hour each time. In the same way send girls to the sewing-room, and boys and girls to the printing-office, if there is one connected with the school. All pupils engaged in this department are expected to do their school-room work out of school hours, or at some other time, which they usually gladly undertake rather than to be deprived of the privileges of the training in manual work."

As has been already stated, the city of Philadelphia was early induced to move in the matter of industrial education, and a manual-training school has been in successful operation for some years. In alluding to this school, the Board of Public Education says:

"The marked interest displayed by the leading nations of Europe in regard to industrial education is steadily imparting itself to the United States, and a leading question with prominent educators has been, How can such training be most successfully and inexpensively introduced into or engrafted upon the common-school system? The lack of facilities for obtaining regular systematic manual instruction by any considerable portion of American youth has been deeply felt and acknowledged; hence the earnest endeavors of our best educational authorities to impress deeply upon the American mind the overshadowing importance of a general coëducation of the head and the hand.

"Those pioneers in this commendably good work have been so far successful, that in a number of our principal cities, and notably in Boston, New York, Chicago, and St. Louis, manual-training schools have been established, and are giving unmistakable evidence of broad and permanent prosperity. The liberal support accorded these institutions indicates the strong and enduring hold which manual training has secured upon the public heart. What renders this more significant, is the fact that in all of them there are fixed and high prices for tuition.

"While Philadelphia has not been among the foremost in this great and constantly enlarging work of educational reform, very much that is substantial and encouraging has been accomplished. The marked success which has attended the

well-directed efforts of the managers of the Spring Garden Institute, and the wholesome influences resulting from those efforts, are worthy of special note, as are the signal advances in the same direction made by the authorities of Girard College, the Pennsylvania Museum of Industrial Art, and other institutions of kindred character.

"Referring to the course of study, it will be perceived that it is not only comprehensive, but practical also, one of its leading requirements being, that every design in drawing, clay-modeling or wood-carving, and all the joinery and metal-work executed by the pupils, shall be with a view to some useful end.

"It would seem superfluous to point out in detail the advantages a school of this character furnishes to its pupils. Daily experience in almost every human pursuit demonstrates the inestimable value of such training, whatever may become the life vocation of those who have enjoyed its benefits. There is not a profession or an industry that is not to a greater or less extent dependent upon some one or more of the branches taught in this school. It is not a trade school. It does not profess to teach handicrafts of any kind, but only to familiarize pupils with the nature and use of hand tools, and enable them to comprehend and accomplish those simple processes which underlie all artistic and mechanical operations. It does not therefore follow that those who receive its instruction must necessarily become either mechanics or artists, though no more needful or desirable preliminary training for either could be devised.

"A proper conception of the character and uses of tools, the handling of them, and the execution of a piece of handiwork, whether it be an original drawing, a model in clay, a piece of wood-carving, or a specimen of metal or joinery work, are calculated to inspire a feeling of greater respect for industrial pursuits than is generally entertained, while at the same time they may be the means of developing the peculiar bent of the tastes or inclinations of the scholars. How many parents have had that most perplexing and painful question: What shall I do with my boy or my girl? satisfactorily answered after the child had enjoyed a term or two of instruction in this school!

"It is a matter of vital importance to the individual and to the nation, that the boy shall so fully understand himself as to know, as far as such knowledge is obtainable, what is *good* for him, even though he fails to determine that which is absolutely *best*. It is the province and special function of the industrial art school to search out and develop the latent powers of its pupils, and provide them with means and opportunities for determining whether their natural gifts lie in the direction of mechanical or artistic pursuits, or neither."

Following are the rules and course of study pursued in this school:

RULES OF PHILADELPHIA MANUAL-TRAINING SCHOOL.

1. The daily sessions of the Manual-Training School shall be five hours, beginning at 9 A.M. and closing at 2.30 P.M., with an intermission of thirty minutes at 12 M. Two hours of this time shall be devoted to study and recitation, one hour to drawing, and two hours to shop practice.

2. Promotion to the Manual-Training School shall be made at the close of the June term, from the twelfth grade, or any higher grade, of the boys' grammar, consolidated and combined schools; but no boy shall be promoted who is under fourteen years of age. The Committee on the Manual-Training School shall designate the time of holding the examination for promotion, and make all necessary arrangements for the same.

3. It shall be the duty of the principals of the several boy's grammar, consolidated and combined schools to certify to the Superintendent of Schools the names of all

boys of the proper age who have finished the course of study in the twelfth grade, or any higher grade, and are desirous of promotion to the Manual-Training School.

4. The examination for promotion to the Manual-Training School shall be under the direction of the Superintendent of Schools, who shall be assisted by a sufficient number of principals of boy's grammar, consolidated and combined schools, to be designated by the Committee on the Manual-Training School.

5. The examination for promotion shall include:

Reading.

Spelling.

Grammar and Composition.

Penmanship.

Arithmetic.

Geography.

United States History.

Drawing.

A minimum average of 60 per cent. shall be required in reading, spelling, grammar, and composition, penmanship, and arithmetic, and a general average of 70 per cent. in all the branches.

6. The number of pupils to be admitted from any school shall be the *pro rata* of the number from that school who pass the required examination to the whole number who can be received into the Manual Training School. Schools having more pupils who have passed the examination than can be received, shall have their respective surplus number of pupils admitted *pro rata* to the aggregate number of vacancies in the Manual Training School, as the same may occur. The pupils of each school shall be admitted in the order of their averages.

COURSE OF INSTRUCTION AND TRAINING.

First Year.

Arithmetic (reviewed); Algebra (begun.)

English Language, its structure and uses; study of selected classics.

United States History and Civil Government.

Physiology. Physical Geography.

Free-hand and Mechanical Drawing.

Shop-Work—Carpentry and joining, wood carving, wood turning, pattern making; proper use and care of tools.

Second Year.

Algebra (finished); Geometry (begun.)

Physics—experimental work in the Physical Laboratory; Principles of Mechanics.

English Composition and Literature. General History.

Geometrical and Mechanical Drawing. Designing.

Shop-Work—forging, welding, tempering, soldering, brazing, molding and casting; proper care and use of tools.

Third Year.

Geometry (finished); Plane Trigonometry and Mensuration.

English Composition and Literature. Social Science.

Elements of Chemistry—laboratory work and lectures. Principles of Mechanics.

Book-Keeping.

Machine and Architectural Drawing. Designing.

Shop-Work—bench-work and fitting; turning, drilling, planing, screw-cutting, etc. Study of the steam-engine, including management and care of steam-engines and boilers.

Elementary principles of the textile and fictile arts, stone-work and masonry.

Instruction to be given in the properties of materials—wood, iron, brass, clay, stone, wool, cotton, throughout the course.

It will be seen that promotions to this school are made from the grammar schools; and, in addition, the Industrial Art School, which is made a part of the public-school system, admits both girls and boys, pupils of the grammar grades, limited to one pupil from each grammar division, applicants to be admitted from each school in the order of their standing in drawing. The sessions of this school are held on Tuesday and Thursday afternoons of each week, from 2:30 until 4:30 o'clock, and on Saturday mornings from 10 to 12 o'clock. Almost everyone has read of the famous Girard College, of Philadelphia, how the eccentric old "miser" left his large fortune for the founding of a college for "poor white male orphans," where they were to be lodged, fed, clothed and educated, and where no minister or clergyman was ever to be admitted. In a recent report the Trustees say:

"Under the terms of the bequest, especially the direction as to teaching 'facts and things,' and the subsequent direction for their apprenticeship to suitable occupations, including 'arts, mechanical trades and manufactures,' the college authorities have felt themselves authorized to introduce a mechanical course, including drawing, the use of tools, and such other elementary training as will lay a good foundation for proficiency in the mechanical arts.

"For this purpose a separate building has been added to the college edifices. A work-shop, 155 feet by 55, with all the conveniences, comprising a large machinery hall, built in the most substantial manner, of which the roof is a splendid specimen of carpentry, a small foundry, a drawing school and a carpenter's shop. The large hall is filled with lathes, vises, engines and work benches, and is kept in perfect order; altogether the establishment is a model of propriety and convenience; the light is excellent, while heating arrangements leave nothing to be desired. The care taken of the youths, even as to their health, includes the precaution of not allowing them to pass too suddenly from the heated atmosphere of the foundry into a large cold room.

"The course of instruction is practical and elementary, such as lies at the base of applied mechanics. The pupils learn to draw simple mathematical forms, squares, cubes, polygons, angles, joints, trusses, spirals; the drawing is succeeded by putting the form drawn into wood, then the young carpenter proceeds to the foundry and learns to form the mould by which his wooden model is to be cast into iron; perhaps in some difficult work the beginner has to hammer out his leaden model before proceeding to the more stubborn and refractory metal. He has to make ready his forge fire, melt the metal, pour it into the mould, withdraw it, and when cold file or chisel away excrescences and bring out a smooth surface. In case where a joint has to be made this implies the most absolute exactness, the bolt must fit into the socket on all sides with precision and accuracy, meant to be air-tight as far as possible. All this work implies care in detail, patience and perseverance in the use of the hammer and chisel, and the file, pencil, the compass and the divider, steadiness with saw, hammer and chisel in the wood process, file, hammer and chisel in the iron, with careful observation and a teachable spirit throughout.

"It is almost incredible, but it is true, that comparatively few hours of work per week are needed to attain a fair proficiency in this work. The boys only get three hours per day twice a week, or in the school year, 200 hours."

This is the sixth year of the Girard Training School. The steps have been carefully made, and it was not at first in the shape in which we now find it. There are about three hundred boys now receiving instructions.

In an interview with Mr. Mitchell, the able administrator of the Girard school, he made the following statements:

"The boys are not allowed to use dangerous machines. They are not allowed to use machines all the time, but are compelled to perform a certain amount of work by hand in order that the hand may be trained.

"Girard College system does not attempt to teach the pupils trades, but simply aims at giving them a knowledge of the principles which underlie them. A specialty is made of pattern-making, because it comes under the college curriculum. The central idea is practice first, theory afterwards.

"When the boys leave, all the capital they take with them is their skill, but they are at a premium, and the supply is not equal to the demand.

"When a green boy goes into a shop he asks for the foreman. The first question the latter puts to him is this: 'Have you ever been at the business?' If he can answer affirmatively he is given employment, or at least a trial. But when a boy goes in search of work, after two or three years' practice and study, armed with a letter from the superintendent stating that he can chip and file flat and square to lines and caliper sizes, he is almost certain of being given employment. This forcing system has already borne good fruit. Boys receive four dollars and fifty cents per week to start with.

"It is still an experiment, of course, because the time has not arrived to say, with a degree of certainty, what the effect will be. It is not an *ignis fatuus*, but a positive reality, and the outcome is looked forward to with hope. It develops latent talent, and three-fifths of the boys gravitate towards mechanical professions and trades.

"Boys usually go into machine shops to serve their time under instructions for three years, a time agreed upon. A boy who has studied in the college one year, receives a credit of two years. Making cubes mathematically correct is not common work. Boys of fourteen do work that practical mechanics often cannot do.

"Previous to the introduction of manual training, a large proportion of the boys going out from this college engaged in farming, but of late they adopt mechanical pursuits in ever-increasing numbers."

INDUSTRIAL EDUCATION IN KANSAS.

So busy have we been in developing the resources of our State where the first-born of its children have barely attained to manhood and womanhood, and where the manufacturing interests have until very recent years been comparatively insignificant, it is not strange that the "three R's" have held full sway, and efforts in the line of manual education almost entirely neglected. Still in a few directions a commencement has been made, and there

are not wanting indications that in the near future more prominence will be given to this new factor in our system of education.

In response to a letter of request, President Fairchild of the State Agricultural College writes as follows:

MANHATTAN, KANSAS, Sept. 18, 1888.

Commissioner Betton, Topeka, Kansas—DEAR SIR: I send you to-day our reports for three years past, and our latest catalogue. As I cannot know exactly the scope of your proposed report, I hardly know what will serve your purpose. Could you not drop in upon us for a few hours after our work is begun this year, say after the 20th of this month, and so see for yourself and ask questions? I shall be glad to assist you.

The Dunkards at McPherson are planning similar work to some of ours, and the Swedes at Linsborg also have some ideas in this line.

Yours truly,

GEO. T. FAIRCHILD.

The history of this College, which has proven of incalculable value to the State, is briefly given in its last annual catalogue as follows:

ENDOWMENT AND RESOURCES.

An act of Congress, approved July 2d, 1862, gave to each State public lands to the amount of 30,000 acres for each of the Senators and Representatives in Congress according to the census of 1860, for the "endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Under this act, the State of Kansas received 82,313.53 acres of land, and in 1863 established the State Agricultural College, by endowing with these lands Bluemont College, which had been erected two miles from Manhattan under the auspices of the M. E. Church, but was presented to the State for the purpose named in the act of Congress. These lands have been sold, giving a fund of \$501,436.33, which is by law invested in bonds, the interest alone being used for the current expenses of the College.

In 1873 the College was reorganized upon a thoroughly industrial basis, with prominence given to practical agriculture and related sciences; and in 1875 the furniture and apparatus of the College were moved to the farm of 215 acres, one mile from the city of Manhattan. On this fine location the State has erected buildings valued at \$128,000, of which a description is given elsewhere. The farm and grounds, furniture, stock, and other illustrative apparatus are valued at over \$112,000.

The annual income from the endowment fund--about \$32,000--meets all the expenses of instruction; the State provides, as the law requires, for the necessary buildings and expenses in management of funds.

Under an act of Congress, approved March 7th, 1887, the College receives, by general appropriation in Congress, \$15,000 each year for the maintenance of an Experiment Station "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agriculture science."

Among its objects as set forth in this catalogue are—

First. To give a substantial education to men and women, and to impart such general information and discipline of mind and character as help to

make intelligent and useful citizens, while the students are kept in sympathy with the callings of the people.

Second. To teach the sciences as applied to the various industries of farm, shop and home.

Third. To train in the elements of the arts themselves, and to impart such skill as will make the hands ready instruments of thoughtful brains.

The College has 314 male and 158 female students, or a total of 472—437 representing 67 counties of the State, and 14 other States furnish the remaining 35; the average age being about 19½ years.

Regarding what may be termed Industrial Education, the College paper speaks as follows:

INDUSTRIAL ARTS.

The training in these departments is designed to be systematic and complete in each, so that the student, following a single line diligently through the four-years course, gains the essentials of a trade and a reasonable degree of skill. Those who wish only a general acquaintance with the arts can take shorter courses in several of them; but all to select with a definite purpose. In the established course, young men are required to take the regular term in the carpenter shop and on the farm and gardens, whatever the industrial chosen; young women are required to give one term to sewing, one to practice in the kitchen laboratory, and one in the dairy.

Agriculture and Horticulture are required of young men as industrials during one term of the second year and one term of the third year. In these, practice is made to illustrate and emphasize the teaching, and covers essentially the same ground.

Cooking.—During the winter term the young ladies who have lectures on Household Economy are required to cook one hour per day. They are taught various methods of making the substantial articles of food, as well as to spend some time on the dainty dishes. During the term they have practice in waiting on the table, in serving guests, and in arranging for evening companies; putting into immediate application the lectures of each day.

Dairying.—During the spring term, daily instruction and practice in the different branches is given to ladies of the second year by the Instructor in Household Economy. Here the regular daily work is supplemented by a short course of lectures intended to explain the best practice in the arts of butter and cheese-making, and to give the reasons therefor. The following topics cover, in the main, the instruction given in the class: Influences affecting the quality and quantity of milk; Butter-making; The household and factory systems of cheese-making; Creameries; "Deep" and "shallow" setting systems; Packing and preserving butter.

Work in Wood and Iron.—All students enrolled in classes for wood-work will be given lessons in sawing and planing to test their skill, and advanced as fast as their work will warrant. Students who desire to learn the trade of carpenter will be given work in the direct line of that trade as far as possible. Work on roofing, framing, bridge-work and stair-building will be done by models. Careful instructions will be given in sharpening, fitting up, and taking general care of all tools required in the work. Carpentry is required of young men during one term of the first year, with especial reference to facility in the use of common tools.

In iron-work, instruction is given in ordinary work—forging, filing, tempering, etc.

Sewing.—Young ladies are taught in all ordinary forms of sewing with needle and machine, fitting and trimming dresses and other garments. A straight-line system of cutting and fitting is taught, and systems are furnished to students at wholesale

rates. They may furnish materials, and work for their own advantage during the hour of practice, under the direction of the Superintendent. One term of sewing is required before the completion of the first year.

Printing.—Two courses are pursued in this art. In one the student is taught the implements or tools used in typography, and how to use them; composition; imposition; correcting proof; technical terms; presses and their workings; and the general duties of a first-class workman. Everyone is encouraged in the study of the rise and progress of printing and related arts. Habits of accuracy and thoroughness are required, in order to advancement. The second course of lessons, alternating with those in the first, embraces instruction in spelling, capitalization, syllabication, punctuation, proof-reading, preparation and criticism of essays, and such work as will make the student accurate and expert in language. Wilson's Punctuation is the text-book; but much of the instruction is oral—such as grows out of every-day experience of the office.

Admirable drill is furnished by the *Industrialist* to all, but especially to those who take the full course. The printing which the departments of the College require gives to the advanced student a fair knowledge of the principles of job work.

Telegraphy.—The course of training involves for beginners the characters that compose the alphabet, and combinations of these characters into words and sentences,—attention being paid to spelling and to short and precise expression in messages,—abbreviations, signals, forms of messages, train orders, reports, etc. To the more advanced is given regular line business—as press reports, messages, cipher messages, and orders in all forms used by prominent telegraph companies, together with the necessary book-keeping, upon exact copies of blanks in actual use, thus giving the student an understanding of the work of an operator. A portion of the time is devoted to instruction in the use and management of lines, batteries, instruments, etc. The elementary principles of electricity, magnetism and electro-magnetism involved in telegraphy are taught and illustrated by experiments. The more recent inventions relating to the art are discussed and explained. Pope's Hand-Book of Telegraphy is used as a text-book.

The Superintendent of Shops, in his report for the year 1885-6, (the last biennial report,) speaks as follows:

"The whole enrollment of students for the year has been 401. The number of individual students enrolled has been 240. The divisions for each term has been as follows: Fall term, 150 carpenters, 8 blacksmiths; winter term, 141 carpenters, 9 blacksmiths; spring term, 92 carpenters, 1 blacksmith. The course taken has been as in former years, to give the greatest amount of practice with the least waste of materials, and to a large extent students have been allowed to work on articles for themselves, paying for all materials used. So that the larger part of work done by students has been taken to their homes, but wherever the work could be turned to account, on work for the College, it has been so directed."

From the reports of superintendents of departments for the year ending June 30, 1887, the following facts are obtained: In the sewing department an average of 59 young ladies were enrolled. During the year over 500 articles were made, 141 of which were dresses, 25 of the pupils learned to cut and fit dresses. The ladies of the graduating class made their own dresses, and the dresses of ladies taking part in the Third-year Exhibition were made in the department. All kinds of sewing, both plain and fancy; knitting and crocheting were taught. The class in household economy numbered 28, and were engaged in cooking—cooking the food and prepar-

ing the supper for the Alumni Association, arranging tables for 150 guests deftly and comfortably. The dairy class numbered 21, making during the term 113 pounds of butter and several cheeses, a limited quantity owing to the scarcity of milk. The washing of towels for the Institution, as well as of napkins, table-cloths and tea-towels for the kitchen laboratory, was done by young ladies who were members of the Second-year class, and was paid for at regular rates for student labor. Of the mechanical department the Superintendent speaks as follows:

The year opened with a class of 155, four of whom were in the blacksmith shop. A systematic course was mapped out for the beginners in this work, and adhered to throughout the year. All students below the Fourth-year are employed, during practice hours, on work laid out by myself; and every inducement is offered for students to spend unoccupied time in the shop on work of their own. The enrollment for the winter term was larger than at any previous time, taxing the capacity of the shops to the utmost, and making apparent the necessity for increased facilities for the coming year. In the winter term there were 156 in the carpenter shop and 11 in the blacksmith shop. There were 83 in the carpenter shop during the spring term. The Third-year class have been instructed in saw-filing, and building from plans, including roof-problems.

In addition to this work, I have done a share of the *Industrialist* [the College paper.—COM.] writing, and designed and superintended many of the improvements about the institution.

Immediately after commencement I went to Cincinnati to purchase machinery, as authorized by the Board. The tools were purchased from four different firms, three of whom are in Cincinnati, and were selected with regard to utility of adjustment, workmanship, compactness of design, and price. The objects for which I went were satisfactorily attained. Below is a list of tools as purchased. In order to accommodate our new tools and at the same time to increase our number of benches, the interior of the shop must be entirely rearranged, and new designs of benches substituted for the old.

TOOLS PURCHASED.

Band saw, 34-inch, Deitz, Woerman & Co., Cincinnati.....	\$85 00
Planer, 24-inch pony, same firm.....	130 00
Lathe, 20-inch, same firm.....	55 00
Friezer, single spindle, Cordesman, Mayer & Co., Cincinnati.....	95 00
Double circular saw, J. A. Fay, Cincinnati.....	213 75
Swing lathe, 9-inch, 4-foot bed, Rose Polytechnic shops, Terre Haute, Indiana.....	35 00
Small speed lathe, same shop.....	18 00

Other small tools and attachments were bought, and will be in place by the opening of the term in September.

FINANCIAL STATEMENT.

<i>Expenditures:</i>		
Bills paid to hardware.....	\$260 17	
Bills paid to lumber.....	491 79	
Miscellaneous.....	120 71	
Pay-roll, students and men.....	1,003 86	
Department bills.....	19 00	
		\$1,904 53
<i>Receipts:</i>		
Cash.....	\$201 65	
Department receipts.....	470 40	
Bills against appropriation.....	435 52	
Bills receivable.....	117 47	
Increase in inventory of tools.....		1,268 52
Balance.....		\$686 01

This amount has been used in furnishing stock for students' practice, for assistance in instructing, for buying new tools, and repairing and keeping in order all apparatus of the shop."

The Superintendent of printing says :

The enrollment during the fall term was 53—17 young women and 36 young men. No new features were introduced into the work this year, but it was carried on as heretofore. The classes of the winter term had not become settled when my successor took charge, so I leave the report of that term to him.

The books in the office will show itemized accounts of all expenditures and receipts. A correct showing of receipts cannot be made until the end of the year, as several jobs of work were left incomplete; but below is a statement of expenditures:

Student labor.....	\$426 55
Paper.....	265 75
Freight and expressage.....	59 98
Type, etc.....	85 25
Department bills.....	25
Postage, box rent.....	15 84
Incidentals.....	20 20
Total.....	\$873 83

The new Superintendent reports the progress of the students as quite satisfactory and proposes to introduce some new features during the coming year; block printing in colors, etc. An extra edition of the College paper (*The Industrialist*) was printed for advertising purposes, 5,000 copies of the annual catalogue, and several pamphlets for class use.

The cost of maintaining these departments after crediting receipts seems to have been for the year as follows:

Sewing... ..	\$38 75
Cooking and dairy.....	101 12
Mechanical.....	636 01
Printing.....	580 10
Total.....	\$1,355 98

This of course does not include the salaries of the teachers.

Applicants for admission to the College must be not less than 14 years of age, and able to pass a satisfactory examination in reading, writing, spelling, arithmetic, geography, and English grammar. Every encouragement is given to habits of daily manual labor during the college course. Only one hour of daily practice in the industrial departments is *required*; but students are encouraged to make use of other opportunities for adding to their ability and means.

The labor of the students in the industrial departments is principally a part of their education, and is not paid for unless the student is employed, outside of required hours of labor, upon work for the profit of the College. Students are so employed upon the farm, in the gardens or the shops, and about the buildings. The labor is paid for at rates varying with the services rendered, from eight to ten cents an hour. The superintendents strive to adjust their work to the necessities of students, and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the in-

creasing extent of the grounds and sample gardens brings more of such labor. The monthly pay-roll for the past year ranges from \$325 to \$400.

Tuition is free. In the printing office, young men pay in their first year \$3 a term for office expenses. In telegraphy, \$3 a term. The cost of textbooks averages about \$5 a term. The total cost of apparatus and tools for the four-years course is less than \$10. Board in private families from \$2.75 to \$4 per week. Washing from fifty cents to \$1 per dozen. To sum up, the ordinary expenses, aside from clothing and traveling, range from \$100 to \$200 per year.

In accordance with the suggestion contained in President Fairchild's letter, regarding the Dunkard College at McPherson, I wrote to that place and received the following reply:

McPHERSON, KANSAS.

Hon. Frank H. Betton, Topeka, Kansas—DEAR SIR: McPherson College and Industrial Institute under the care of the German Baptists or "Dunkard Brethren," has an industrial farm of 145 acres attached, which is intended for an industrial farm for the purpose of making experiments. Some experiments were made this summer, but the property came too late into the hands of the trustees to make many experiments. The School opened September 5, 1888, and has at this date 83 students enrolled. Respectfully,

S. Z. SHARP.

It may be inferred from this letter that operations at this school have not yet fairly begun.

The Indian school, at Lawrence, known as the Haskell Institute, was established by the Department of the Interior a few years ago, and now contains several hundred Indian children, chiefly from the wild tribes located in the Indian Territory—Cheyennes, Araphahoes, &c. A large majority of the number are unable to speak or understand the English language upon their arrival at the Institute, and are wild and untutored in every respect. It is surprising what a change even a short residence at this institution produces, and in what a brief time these children are transformed into well-disciplined school children, averaging well up with white children of the same age. Manual training is made by the Government a prominent feature in this school, as the following letter, written by ex-Governor Robinson, the Superintendent, indicates:

LAWRENCE, KANSAS, September 8, 1888.

Frank H. Betton, Esq., Commissioner Labor Statistics, Topeka, Kansas—DEAR SIR: Your favor of September 7th at hand. Industrial training is one of the features of Indian education. The regulations of the Indian Department exact that this feature of the Indian education shall receive its due share of attention. Our boys and girls above the age of 14 are regularly detailed to some kind of work for one-half of the day, and attend school during the remainder of the time.

Carpentry, painting, tailoring, blacksmithing, harness-making, shoemaking, dress-making, farming, gardening, etc., are taught and practiced daily, and many of the pupils become very proficient in these various avocations.

I know of no similar institution in Kansas.

Respectfully,

C. ROBINSON, *Superintendent.*

I have made diligent effort to learn of all attempts made in the State in the direction of manual training, and have written to a number of places where I had been informed that initiatory steps had been taken, but succeeded in eliciting no replies, except in the case of the Deaf and Dumb Institution, at Olathe. From the Hon. S. T. Walker, the Superintendent of that institution, I received the following very interesting letter:

OLATHE, November 21, 1888.

Hon. Frank H. Betton, Commissioner Labor Statistics, Topeka, Kansas—DEAR SIR: In response to your inquiry of 15th inst., relative to the Industrial Department of this institution, I submit the following:

The honor of introducing systematic manual training into a regular common-school course belongs, I believe, so far as relates to this country at least, to managers of institutions for the education of the deaf and dumb. In every well-organized State institution for the education of deaf mutes, the industrial department is recognized as of as much importance as the literary; in fact, the two departments are considered inseparable. The student, metaphorically speaking, doffs his gown to don his apron at intervals through the day, and he takes his theories fresh from the school-room and applies them in practice in the shops.

In the sixty-nine institutions for the education of the deaf and dumb in the United States, the following industrial branches are taught, though on an average, each institution teaches not more than four or five of the branches named below.

Baking, basket-making, blacksmithing, book-binding, broom-making, cabinet-making, carpentry, chair-making, cooking, clay-modeling, coopery, dress-making, farming, gardening, glazing, knitting, mattress-making, moulding, machine work, painting, plumbing, pattern-making, printing, photography, sewing, shoe-making, tailoring, trimming, tool-making, wood-carving, wood-engraving, wood-turning.

The trades that are most commonly taught are cabinet-making and carpentry, shoe-making, printing, tailoring, sewing, and dress-making.

The Industrial Department of the Kansas Institution for the Education of the Deaf and Dumb was begun on a small scale in 1876 by the aid of a small appropriation from the State treasury in that year. While the Department has materially increased in importance within the twelve years of its existence, it has not advanced so far as buildings and appliances are concerned as rapidly as have the Literary and Domestic Departments, nor yet as rapidly as the growth of our State would warrant. We shall endeavor to bring the matter prominently before the Legislature at the coming session in the hope that relief may be secured from our present cramped condition.

The trades taught to boys (ranging in age from 14 to 20 years) are printing, cabinet-making, (including wood-turning and carving,) carpentry, shoemaking, and gardening. The girls are taught plain sewing and dressmaking, fancy work and domestic work. We also have an Art Department in which our girls, many of them, are displaying considerable talent. This Department has been in operation but little over three years. In the printing-office, type-setting, plain and fancy printing, press-work, etc., are taught. A weekly 8-page quarto is printed, called the *Kansas Star*, which has a good circulation, principally among the patrons of the school. Then quite a large amount of printing is done in the shape of lessons for class-work. There are about twenty boys in this department under the charge of a foreman.

In the cabinet and carpenter shop, there are about 25 boys under one foreman. Nearly all the repairs of our large buildings are done by them, as well as ordinary

improvements. Several creditable pieces of furniture have also been manufactured, such as dressers, washstands, tables, book-cases, desks, etc. The product of the shop is almost entirely devoted to keeping up repairs and furnishing and replenishing.

In the shoe shop there are about 20 boys under the charge of a foreman. Here the boys are taught first to sew and peg, and later to construct, until at the end of the course they can measure and cut out work and are able to run a shop of their own. All the cobbling for 225 children is done by the boys in this department, besides an appreciable amount of new work sold principally to the pupils and latterly to the State Insane Asylums.

The gardener has usually from 12 to 15 boys working with him. The care of vegetables and the potting of flowering plants are inculcated. Not so much attention is given to this pursuit, from the fact that a majority of our pupils are children of farmers and can have sufficient practice in that line during the three months of summer vacation.

In the Art Department there are 50 pupils who take forty-minute lessons daily. Elementary drawing, drawing from the flat, from solids, and from casts, are all taught at various stages of progress; also oil painting and decorating, elements of mechanical drawing, and fret-sawing are taught. To this department I would like to add at some future time, photography.

Our hours for school and shop-work are so divided as to have one-third of the whole school at some industry while the other two-thirds are in school. When the hours for changing divisions arrives, one of the thirds in school changes with the third at industrial work. The average time spent in the shops per day is four and a half hours. Unlike the penal institutions, the industrial department of this institution was not established with a view of direct pecuniary return to the State, but as one department of education. Composed entirely of young journeymen who can spend but a few hours a day in the shop, it could hardly be expected that any return above the expenses incurred could be made. The department however may be said to be almost, if not quite, self-sustaining, if, as is just and right, the work done in keeping up repairs, &c., &c., of the institution are reckoned at what they would cost if outside mechanics were employed. The sole aim in establishing the department was to provide a means by which our pupils, after leaving school, could be self-sustaining, and also to inculcate habits of industry in youth. While all do not follow the trade learned while here, those who do not, as in the case of farmers, continually find a knowledge of the use of tools and the discipline of the hand which they gained while at school to be of inestimable advantage to them.

We confidently believe that our best results in this line of education are yet in the future, and we hope to be allowed to advance the department to a degree commensurate with its importance.

Very truly yours,

S. T. WALKER, *Superintendent.*

If there are any other institutions, either private or supported by the State, where manual instruction forms a part of the curriculum, it has not come to the knowledge of this bureau, with the possible exception of the State Blind Asylum, where broom-making and kindred industries suited to the unfortunate condition of the pupils are pursued. From this institution, however, we have received no direct report.

PART 3.

FLOURING MILL.

Following the plan adopted in our former reports, I have again devoted a separate chapter to the milling industry. Owing to the failure of crops and the consequent scarcity of grain, there has been a marked falling-off both in the number of bushels ground and in the value of product. A large number of our blanks were returned accompanied by a letter stating that the mill had been idle for the past year. Numerous reasons were given, but a large majority stated that there was no grain in their vicinity, while many others (water mills) complained of a scarcity of water. Some were changing from buhr to roller mills. Some had burnt out, and in some instances the owner had died and the mill had been shut down. This falling-off, however, is chiefly confined to the smaller towns and to local mills. In the milling centers generally there has been as much grain ground and about the same amount of business done as in former years. Topeka, for the year covered by the last report—from July 1, 1886, to June 30, 1887—employed capital amounting to \$470,000, and ground 1,277,350 bushels of grain, while from July 1, 1887, to June 30, 1888, \$532,000 capital was employed, and 1,441,500 bushels were ground, an increase in capital of \$62,000, and in grain ground of 164,150 bushels. Leavenworth ground 1,295,500 bushels, against 919,000 the previous year, an increase of 376,500 bushels. There was a falling-off in Atchison and in Lawrence, but in the aggregate the milling centers show a small increase. In the counties of Atchison, Douglas, Leavenworth and Shawnee, 4,169,702 bushels of grain were ground for the year ending June 30, 1888, against 4,007,350 reported the previous year; an increase of 162,352 bushels. A very good showing, considering the short crops and the low price of mill products. Still, taking the State as a whole, only 13,220,482 bushels were ground, against 15,480,392 the previous year, a decrease of 2,259,910 bushels, while the value of the product fell from \$10,467,629.14 to \$9,642,272.36, a shortage of \$825,356.78; and capital employed, from \$7,923,390 to \$6,870,300, or a reduction of \$1,053,090. But as the mills reporting dropped from 307 to 241, sending, instead of reports, letters stating that owing to one or more of the several causes given they were out of business, the deficiency is accounted for. As

already shown, there has been little change among the large merchant mills, and from these, as in former years, I have received the fullest and most reliable reports. Several large mills have been recently constructed throughout the State, and others are in process of erection, despite the crop shortage of the past few years; and with the better outlook for the future now prevailing, it is safe to predict that the milling interests of the State will enter into a new era of prosperity, and that the next report of this Bureau will show a gratifying increase both in capital invested and amount of output.

The tables on the pages following give the location of each mill in the State from which reports have been obtained, arranged by counties.

TABLE OF FLOURING MILLS, BY COUNTIES, FROM JUNE 30, 1887, TO JUNE 30, 1888.

No. of return.....	County.	Town or city.	Motive power.	Value of mill.	No. days run (12 hours).....	Total capital employed.	Capacity in bbls., 24 hours' run.....	No. sets of rolls.....	No. sets of buhrs...	No. of bushels of grain ground.	Cost of same.	No. of pounds of flour, etc., manufactured.	Value of product.	No. of employes....
1	Allen	Humboldt.....	Steam and water...	\$50,000	.....	\$90,000	450	20	.....	200,000	\$160,000	8,000,000	\$188,000	12
2	"	Iola.....	" " " "	10,000	.....	10,000	.....	.....	.....	31,500	17,700	1,200,000	26,000	4
3	"	"	Steam	8,000	.....	8,000	.....	.....	.....	52,500	27,250	2,000,000	34,405	4
4	Anderson	Garnett.....	"	.....	200	20,000	100	6	1	15,000	.....	600,000	.....	5
5	"	Kinsaid.....	"	.....	225	.....	.....	.....	.....	.....	5,146	.....	.....	2
6	"	Kingbird.....	Water	12,000	300	14,000	75	2	2	20,000	12,000	800,000	14,500	22
7	Atchison	Arlington.....	Steam	50,000	600	100,000	400	26	.....	350,000	250,000	15,000,000	350,000	15
8	"	Atchison.....	"	40,000	260	75,000	300	24	3	176,400	123,500	7,683,200	152,200	15
9	"	"	"	75,000	523	110,000	300	16	1	166,302	124,725	7,140,476	175,117	16
10	"	"	"	50,000	300	80,000	350	30	1	160,000	120,000	7,000,000	155,000	15
11	Barber	Hazelton.....	"	15,000	200	15,000	.....	.....	.....	22,900	11,270	845,000	15,000	4
12	Barton	Ellinwood.....	"	17,000	300	25,000	100	10	2	40,000	25,000	1,335,000	35,000	8
13	"	Great Bend.....	"	60,000	400	75,000	275	17	.....	210,000	126,000	6,720,000	196,000	13
14	"	"	"	30,000	300	30,000	.....	.....	.....	150,000	84,000	4,500,000	102,800	8
15	Bourbon	Fulton.....	"	15,000	300	50,000	100	4	2	75,000	60,000	3,000,000	100,000	1
16	"	Mapleton.....	"	4,000	125	4,000	.....	.....	.....	10,000	6,000	400,000	9,000	3
17	Brown	Hiawatha.....	"	20,000	150	30,000	125	4	3	12,000	7,200	480,000	12,400	5
18	"	Padonia.....	Water	6,000	80	7,000	.....	.....	.....	.....	.....	320,000	.....	1
19	Butler	Augusta.....	Steam	26,000	125	30,000	125	9	1	41,518	26,917	1,805,600	31,950	5
20	"	Douglas.....	"	15,000	.....	15,000	.....	.....	.....	143,000	77,950	5,720,000	113,200	6
21	"	El Dorado.....	Water	10,000	200	15,000	40	6	1	24,000	15,240	720,000	15,720	2
22	"	"	Steam and water...	12,000	60	13,000	75	5	1	3,000	2,100	117,000	3,650	2
23	"	"	"	10,000	38	12,000	75	5	1	.....	2,100	120,000	2,780	4
24	Chase	Cedar Point.....	Water	15,000	.....	15,000	100	.....	2	2,000	1,500	80,000	2,500	2
25	Chautauqua	Farmersburg.....	Wind	2,000	.....	3,000	.....	.....	.....	.....	.....	.....	.....	2
26	"	Graton.....	Water	800	150	800	50	.....	1	8,000	30,000	320,000	50,000	9
27	"	"	"	4,000	.....	8,000	50	.....	2	50,000	.....	480,000	.....	3
28	Cherokee	Hart's Mill.....	"	1,500	120	3,000	50	.....	.....	12,000	.....	1,500,000	33,500	9
29	"	Boston Mills.....	Steam	25,000	275	30,000	125	10	.....	36,000	20,000	1,070,000	15,634	3
30	"	Columbus.....	"	3,200	200	3,500	50	.....	3	30,000	12,800	470,000	.....	3
31	"	"	"	1,500	.....	1,500	.....	.....	.....	11,500	7,550	2,000,000	760,000	3
32	"	Hallowell.....	"	5,000	.....	5,000	60	16	.....	19,000	10,200	2,000,000	48,000	4
33	"	Lowell.....	Water	7,000	600	14,000	.....	.....	.....	50,000	33,300	1,200,000	13,200	3
34	"	"	"	5,500	.....	5,500	.....	.....	.....	30,000	10,000	2,000,000	40,000	8
35	Clay	Clay Center.....	"	20,000	200	25,000	100	10	4	50,000	29,000	2,952,000	37,000	6
36	"	"	Steam	40,000	164	50,000	200	12	.....	73,800	55,350	1,425,000	30,000	4
37	"	Morganville.....	"	12,000	250	18,000	75	16	2	51,500	27,575	1,200,000	37,000	5
38	Cloud	Concordia.....	Water	25,000	120	35,000	100	5	1	30,000	19,500	1,200,000	22,300	4
39	"	Glascow.....	Steam	25,000	150	25,000	.....	.....	.....	25,500	17,450	1,080,000	.....	4

TABLE OF FLOURING MILLS, BY COUNTIES—CONTINUED.

<i>No. of return.....</i>	<i>County.</i>	<i>Town or city.</i>	<i>Motive power.</i>	<i>Value of mill.</i>	<i>No. days run (12 hours).....</i>	<i>Total capital employed.</i>	<i>Capacity in bbls., 24 hours' run.....</i>	<i>No. sets of rolls.....</i>	<i>No. sets of buhrs....</i>	<i>No. of bushels of grain ground.</i>	<i>Cost of same.</i>	<i>No. of pounds of flour, etc., manufac- tured.</i>	<i>Value of product.</i>	<i>No. of employes.....</i>
40	Colley	Alcerville.....	Steam.....	\$2,000	.....	\$3,500	75	4	1	.....	.....	.....	.....	4
41	"	Leroy.....	"	12,000	.....	16,000	.....	.....	.....	2,900	\$850	104,000	.....	5
42	Cowley	Akron.....	"	6,000	60	6,000	.....	.....	.....	250,000	175,000	10,000,000	\$200,000	20
43	"	Arkansas City.....	Water and steam...	80,000	562	150,000	400	35	2	18,300	5,450	732,000	7,550	2
44	"	"	Steam.....	3,000	125	5,000	.....	.....	.....	112,000	79,800	4,000,000	86,000	15
45	"	"	Water.....	80,000	.....	50,000	.....	.....	.....	350,000	262,500	14,000,000	325,000	16
46	"	Winfield.....	Steam and water...	75,000	.....	75,000	600	36	1	.....	.....	.....	.....	.....
47	"	"	Steam and water...	7,000	.....	7,000	.....	.....	.....	.....	.....	.....	.....	.....
48	Crawford	.....	Water.....	10,000	250	20,000	50	8	4	35,000	24,500	1,400,000	.....	4
49	"	Arcadia.....	Steam.....	1,200	.....	1,200	.....	.....	.....	.....	.....	.....	.....	.....
50	"	Cherokee.....	"	20,000	275	25,000	75	8	2	30,000	22,500	1,320,000	26,400	7
51	"	Girard.....	"	1,500	100	2,000	50	5	2	20,000	6,000	800,000	.....	3
52	"	Hepler.....	"	6,000	100	7,000	25	3	.....	14,700	.....	.....	.....	3
53	"	Monmouth.....	"	8,000	.....	8,000	.....	.....	.....	.....	.....	600,000	.....	4
54	"	Mulberry Grove.....	"	8,000	196	25,000	80	7	3	43,287	28,901	2,117,480	38,477	6
55	"	Pittsburg.....	"	21,800	175	7,000	40	2	2	40,000	16,000	1,600,000	18,000	2
56	"	Wahnet.....	"	6,000	.....	20,000	.....	.....	.....	.....	.....	.....	.....	.....
57	Davis	Junction City.....	Water.....	20,000	100	7,500	30	.....	2	.....	.....	.....	.....	1
58	"	Milford.....	"	7,000	.....	5,000	.....	.....	.....	.....	.....	.....	.....	1
59	"	Cedar Bluffs.....	"	5,000	.....	400	.....	.....	.....	.....	.....	.....	.....	1
60	Dickinson	Abilene.....	Steam.....	56,000	75	70,000	240	9	6	40,000	30,000	1,600,000	45,000	5
61	"	"	"	20,500	380	30,000	150	11	2	76,000	45,600	3,400,000	61,620	8
62	"	"	Water.....	6,000	.....	6,000	.....	.....	.....	.....	.....	.....	.....	.....
63	"	Carlton.....	Steam.....	15,000	300	24,000	80	11	.....	56,000	21,500	1,568,000	36,000	2
64	"	Dillon.....	Water.....	9,000	.....	9,000	.....	.....	.....	13,000	4,200	520,000	3,250	6
65	"	Enterprise.....	"	150,000	.....	150,000	.....	.....	.....	320,000	160,000	12,800,000	.....	16
66	"	Herington.....	Steam.....	10,000	.....	15,000	.....	.....	.....	52,000	2,000,000	.....	.....	5
67	"	Industry.....	"	20,000	.....	20,000	.....	.....	.....	89,599	38,585	3,583,800	40,319	2
68	"	New Basil.....	"	3,000	.....	3,000	.....	.....	.....	.....	.....	.....	.....	5
69	"	Stephen's Mills.....	Water.....	4,000	468	6,000	.....	1	2	23,400	11,870	772,200	15,444	2
70	"	Woodbine.....	Steam and water...	5,000	.....	5,000	.....	.....	.....	.....	.....	.....	.....	1
71	Bonifant	.....	Steam.....	1,000	60	4,000	40	2	.....	1,200	600	21,600	900	2
72	"	Iowa Point.....	Steam.....	16,000	210	20,000	85	5	2	35,000	24,500	1,350,000	30,000	3
73	"	Severance.....	Steam and water...	7,500	100	15,000	.....	1	.....	5,000	2,000	200,000	3,000	3
74	"	"	Steam.....	2,000	100	2,000	.....	.....	.....	8,000	3,000	320,000	.....	5
75	"	Wathena.....	"	20,000	300	40,000	150	9	2	75,000	50,000	3,000,000	70,000	3
76	"	"	"	6,000	.....	6,000	.....	.....	.....	20,000	10,500	800,000	.....	3
77	Douglas	Fadora.....	"	20,000	.....	30,000	125	8	.....	.....	.....	.....	.....	.....
78	"	Lawrence.....	"	60,000	450	60,000	250	22	1	150,000	105,000	6,000,000	.....	12

79	Douglas.....	Lawrence.....	Water.....	75,000	150,000	500	25	5	300,000	180,000	12,000,000	250,000	15	
80	"	"	"	15,000	15,000	"	"	"	110,000	"	4,500,000	90,000	10	
81	"	Media.....	Steam.....	5,000	5,000	"	"	"	"	"	"	"	"	
82	Edwards.....	Kinsley.....	"	30,000	20,000	100	7	"	"	"	"	"	"	
83	Ellis.....	"	"	20,000	40,000	"	"	"	"	"	"	"	"	
84	"	Hays City.....	"	25,000	280	150	16	1	160,000	100,000	6,400,000	140,000	10	
85	"	"	"	20,000	20,000	"	"	"	75,000	37,000	3,000,000	75,000	4	
86	"	"	"	5,000	5,000	"	"	"	"	"	"	"	"	
87	"	Martin.....	Water.....	15,000	15,000	125	2	5	37,500	26,250	1,500,000	36,500	4	
88	Ellsworth.....	Victoria.....	Steam.....	30,000	30,000	"	"	"	"	"	"	"	"	
89	"	Ellsworth.....	"	30,000	35,000	100	12	5	"	"	"	"	"	
90	"	Wilson.....	"	25,000	32,000	150	5	4	60,016	35,000	2,400,000	32,000	7	
91	Ford.....	Dodge City.....	"	18,000	18,000	150	14	"	"	"	"	"	"	
92	Franklin.....	Ottawa.....	"	30,000	17,000	100	3	6	"	"	"	"	"	
93	"	Ponoma.....	"	15,000	17,000	75	2	3	"	"	"	"	"	
94	Greenwood.....	Fall River.....	Water.....	15,000	15,000	50	5	"	30,000	18,000	1,200,000	24,000	2	
95	Harper.....	Harper.....	Steam.....	25,000	40,000	150	18	"	132,000	92,400	5,280,000	96,400	9	
96	Harvey.....	"	"	6,000	6,000	"	"	"	16,000	6,000	640,000	8,000	"	
97	"	Burton.....	Steam.....	10,000	10,000	100	12	1	55,000	38,000	460,000	9,000	3	
98	"	"	"	16,000	20,000	350	25	"	150,000	105,000	2,200,000	45,000	5	
99	"	Halshead.....	"	50,000	200	80,000	"	"	16,500	5,600	6,000,000	136,500	8	
100	"	"	"	2,500	2,500	"	"	"	"	"	820,000	4,500	2	
101	"	Newton.....	Water.....	10,000	10,000	200	21	"	140,000	84,000	5,600,000	112,000	12	
102	"	"	Steam.....	35,000	50,000	"	"	"	36,000	24,300	1,400,000	"	3	
103	Jackson.....	Holton.....	"	20,000	20,000	50	6	3	15,000	11,000	1,600,000	14,000	3	
104	Jefferson.....	Oswawkee.....	Water.....	12,000	16,000	50	4	3	"	"	"	"	"	
105	"	"	Steam.....	7,000	7,000	50	4	3	37,948	21,945	1,518,000	25,379	7	
106	"	Thompsonville.....	Water.....	26,000	34,000	100	12	3	39,250	28,260	1,600,000	"	4	
107	"	Valley Falls.....	Water and steam.....	17,000	304	25,000	50	6	75,000	60,000	3,000,000	70,000	6	
108	"	"	"	35,000	265	150	7	2	47,000	31,430	1,670,000	34,000	4	
109	Johnson.....	De Soto.....	Steam.....	16,000	250	20,000	85	10	40,000	23,000	1,700,000	30,000	5	
110	"	Olathe.....	"	25,000	240	35,000	100	12	45,000	25,000	1,750,000	32,000	6	
111	Kingman.....	Kingman.....	Water.....	20,000	20,000	50	5	2	27,000	18,900	1,134,000	22,680	6	
112	Labette.....	Atamont.....	Steam.....	8,000	10,000	75	16	1	"	"	"	"	"	
113	"	Chetopa.....	"	15,000	15,000	"	"	"	"	"	"	"	"	
114	"	"	"	5,000	"	"	"	"	"	"	"	"	"	
115	"	Edna.....	"	7,000	138	7,000	40	1	3	"	"	"	"	
116	"	Mound Valley.....	"	6,000	200	8,000	40	2	2	20,000	14,000	800,000	"	"
117	"	Oswego.....	"	85,000	500	85,000	"	"	350,000	257,600	14,000,000	283,000	20	
118	"	"	"	300	7,000	30	30	2	40,000	4	1,600,000	"	"	
119	"	Parsons.....	"	30,000	300	50,000	150	10	75,000	60,000	3,000,000	75,000	9	
120	"	"	"	20,000	300	25,000	100	1	46,000	29,000	1,905,000	43,000	6	
121	Leavenworth.....	Dafer.....	Water.....	8,000	8,000	"	"	"	10,000	8,000	400,000	12,500	1	
122	"	Leavenworth.....	Steam.....	6,000	200	8,000	100	2	24,000	12,000	960,000	"	5	
123	"	"	"	100,000	600	180,000	600	3	730,000	462,500	30,000,000	530,000	25	
124	"	"	"	75,000	500	125,000	500	60	430,000	360,000	18,000,000	"	"	
125	"	"	"	7,000	250	7,000	"	"	5,000	25,000	2,000,000	40,000	7	
126	"	Lenape.....	"	2,000	50	2,500	"	1	5,000	"	200,000	"	3	
127	"	Millwood.....	Steam and water.....	5,000	5,000	"	"	"	"	"	"	"	"	
128	"	"	Steam.....	1,000	1,000	"	"	"	6,500	5,800	344,500	6,190	2	
129	"	Tonganoxie.....	"	2,500	2,500	"	"	"	11,000	6,700	440,000	"	"	
130	Lincoln.....	Beverly.....	Water.....	8,000	8,000	"	"	"	"	"	"	"	1	

170	Osage	Carbondale	Steam.	15,000	23,000	90	3	4	60,000	3,800,000	85,000	7
171	Quemeno	Water.	25,000	25,000	25,000	100	6	1	60,000	2,400,000	46,000	6
172	Osborne	Water.	20,000	280	25,000	100	9		60,000	2,400,000	54,000	7
173	Ottawa	Steam	9,000	240	10,000	100						2
174	Delphos	Water	10,000		1,300							7
175	"	"	1,000		1,300							2
176	Minneapolis	Water.	6,000	150	6,000	100	6	1	60,000	2,520,000	40,000	3
177	Penquite	Water.	1,000		1,000							1
178	Larned	Steam.	25,000	300	30,000	100	6	1	45,000	3,000,000	55,000	4
179	Pawnee	"	18,000	160	30,000	100	7		60,000	2,400,000	45,000	
180	Phillips	Water.	10,000		15,000	30	2	4				
181	Logan	"	6,000	260	9,000	50	3		5,850	360,000	2,700	1
182	Marvin	"	5,000		5,000				12,000	480,000	9,200	1
183	"	"	7,000		7,000				6,000	400,000	8,000	3
184	Laclede	Water and steam.	20,000	40,000	20,000	70	1	3	16,000	960,000	19,000	4
185	Pottawatomie	Water.	30,000	40,000	40,000	100	2	4	24,000			
186	"	"	2,500	2,500	2,500				1,555	66,000	1,355	2
187	Wamego	Steam	35,000	35,000	35,000				55,200	39,720	2,700	2
188	Saratoga	Water and steam.	34,000	295	46,000	100	10	4	40,000	2,743,500	59,500	8
189	Rawlins	Steam	18,000	150	21,000	87	9		31,950	1,260,000	28,800	5
190	Herdon	Steam and water.	4,000		4,000							
191	Haven	Steam	20,000	30	20,000							
192	Lerado	"	4,000	30	4,500	35	2		4,800	192,000	2,500	5
193	Nickerson	"	28,000	180	40,000	150	13		1,000	108,000	2,200	2
194	Scandia	Water.	10,000	42	20,000	60	4	2	67,500	2,598,750	54,573	6
195	Republic	Steam	32,000	200	48,000	125	5	2	4,262	250,480	5,108	3
196	Rice	Water.	30,000	150	30,000	75	10	4	59,500	2,250,000	48,680	8
197	Garrison	Steam	20,000	250	40,000	75	4	4	46,500	1,860,000	49,000	4
198	Manhattan	Water.	2,000	30	4,000	15	2		2,000	80,000	1,000	2
199	Randolph	"	10,000	200	12,000	50	4	2	40,000	1,600,000	28,000	4
200	Bunker Hill	Steam	14,000	14,000	14,000							
201	Russell	"	25,000	320	35,000	150	6	2	70,000	4,400,000	81,500	4
202	Assaria	"	12,000	280	12,000				40,000	1,600,000	34,000	5
203	Suline	Water.	20,000	125	20,000	200			25,000	1,000,000	97,000	4
204	Bridgeport	Steam	35,000	225	35,000	104			62,400	4,160,000	122,000	10
205	Brookville	"	150,000	400	200,000	130,000			200,000	8,000,000	180,000	18
206	Salina	Water.	100,000	375	100,000	137,000			157,000	6,280,000	155,000	10
207	"	Steam.	150,000		150,000				7,500	600,000	10,000	4
208	"	"	2,000		2,000				6,000			
209	Wichita	Water and steam.	60,000	590	90,000	300	27	1	135,000	142,000	8,575,000	13
210	Sedgewick	Water and steam.	75,000	240	75,000	300	7	4	140,000	5,800,000	135,000	13
211	Shawnee	Steam	14,000	135	14,000				18,000	720,000	19,000	6
212	Topeka	"	70,000	310	120,000	400	28		300,000	12,000,000	240,000	18
213	"	"	65,000	404	90,000	260	19	3	328,500	172,000	9,800,000	15
214	"	"	100,000	370	150,000	500	48	3	280,000	266,000	225,000	30
215	"	"	50,000	360	80,000	300	31	3	305,000	228,750	16,250,000	13
216	"	"	20,000	250	28,000	300	4	4	130,000	15,000,000	291,000	22
217	"	"	20,000	200	30,000	200	2	2	80,000	5,000,000	80,000	12
218	"	"	16,000	151	20,000	50	2	3	6,000	3,200,000	40,000	6
219	Gaylord	Water.	10,000	151	10,600	50	2	3	3,900	240,000	5,000	1
220	Smith	"	5,000	5,000	5,000	75	8	1	2,500	100,000	1,500	2
221	Harlan	"	12,000	12,000	12,000							

TABLE OF FLOURING MILLS, BY COUNTIES—CONCLUDED.

<i>No. of return.....</i>	<i>County.</i>	<i>Town or city.</i>	<i>Motive power.</i>	<i>Value of mill.</i>	<i>No. days run (12 hours).....</i>	<i>Total capital employed.</i>	<i>Capacity in bbls., 24 hours' run.....</i>	<i>No. sets of rolls.....</i>	<i>No. sets of buhrs...</i>	<i>No. of bushels of grain ground.</i>	<i>Cost of same.</i>	<i>No. of pounds of flour, etc., manufactured.</i>	<i>Value of product.</i>	<i>No. of employes.....</i>
222	Smith.....	Houston.....	Water.....	\$25,000	250	\$30,000	60	2	5	25,000	\$15,000	1,000,000	\$11,500	3
223	"	Reansville.....	Wind.....	3,000		3,000	50		3					
224	Stunner.....	Corbin.....	Steam.....	12,000	140	12,000	65	10	1	25,000	20,000	1,000,000	22,000	4
225	"	Drury.....	Water.....	10,000	250	10,000	50	4	1					3
226	"	Oxford.....	"	3,500		3,500								4
227	"	Wellington.....	Steam.....	70,000		70,000		13		375,000	281,250	15,000,000	449,280	6
228	"	"	"	30,000	260	40,000	150	8	4	85,000	59,500	3,450,000	77,500	10
229	Wabausee.....	Alma.....	Water and steam...	20,000	100	30,000	100							
230	"	Mission Creek.....	Steam.....	1,000		1,000	8		1	30,000	19,500	1,200,000	25,000	5
231	"	Paxico.....	Water and steam...	18,000	275	22,000	50	5	1	20,000	10,000	800,000	15,000	2
232	Washington.....	Hanover.....	Water.....	10,000	300	15,000	50		4	25,000	12,500	1,000,000		3
233	"	Hollenberg.....	"	16,000		18,000	100	7						
234	"	Vining.....	Steam.....	7,000		10,000			1					1
235	"	Washington.....	Water.....	4,000		5,000	24		2	8,000		320,000		
236	Wilson.....	Altoona.....	"	6,000		6,000			4	59,000	41,500	2,300,000		3
237	"	Neodesha.....	Steam.....	15,000		15,000				10,000	7,000	400,000	8,000	3
238	"	"	"	8,000	200	12,000	50	2	2	30,000	22,000	1,200,000	34,500	4
239	Woodson.....	Neosho Falls.....	Water and steam...	15,000	300	20,000	60	8	5					
240	"	"	"	3,125		7,000	50							
241	Wyandotte.....	Kansas City.....	Water.....	30,000	308	42,000	120	12		90,000	63,000	3,600,000	86,341	7
242	"	Pomeroy.....	Steam.....	35,000		35,000	100	3	5					

TABLE GIVING THE AGGREGATE, BY COUNTIES, OF THE VARIOUS ITEMS CONTAINED IN DETAIL IN THE PRECEDING TABLES.

No. of mills..	Counties.	Value of mills.	Total capital employed.	Number of bushels of grain ground.	Cost of same.	No. pounds of flour, etc., manufact'd, reduced to barrels.	Value of product.	Average No. of hours employed.
3	Allen	\$78,000	\$108,000	284,000	\$204,950 00	56,000	\$248,405 00	21
2	Anderson		¹ 20,000	¹ 15,000	¹ 5,146 00	¹ 3,000		6
5	Atchison	227,000	379,000	872,702	630,225 50	188,118	846,817 92	¹ 68
1	Barber	15,000	15,000	22,900	11,270 00	4,225	15,000 00	4
3	Barton	107,000	130,000	400,000	235,000 00	62,775	333,800 00	31
2	Bourbon	19,000	54,000	85,000	66,000 00	17,000	109,000 00	4
2	Brown	26,000	37,000	20,000	¹ 7,200 00	4,000	¹ 12,400 00	6
5	Butler	73,000	85,000	214,518	124,307 85	42,413	167,280 65	19
1	Chase	15,000	15,000					2
3	Chautauqua	6,800	11,800	60,000	¹ 31,500 00	12,000	¹ 52,500 00	¹ 11
7	Cherokee	48,700	62,500	188,500	¹ 93,850 00	37,700	³ 110,334 00	28
3	Clay	72,000	93,000	175,300	111,925 00	31,885	¹ 77,000 00	18
2	Cloud	50,000	60,000	55,500	36,950 00	11,400	52,300 00	9
2	Coffey	14,000	19,500					¹ 4
6	Cowley	251,000	323,000	¹ 733,200	¹ 523,450 00	¹ 147,180	² 618,550 00	¹ 58
8	Crawford	74,500	95,200	² 182,987	² 97,900 90	² 39,187	⁶ 82,877 08	¹ 29
2	Davis	27,000	27,500					1
1	Decatur	5,400	5,400					2
11	Dickinson	297,500	338,000	³ 649,999	⁴ 311,755 00	³ 131,220	² 201,635 00	¹ 48
6	Doniphan	52,500	87,000	144,200	90,600 00	28,458	² 103,900 00	19
5	Douglas	175,000	260,000	² 560,000	³ 285,000 00	² 112,500	³ 340,000 00	² 37
1	Edwards	30,000	40,000					
5	Ellis	85,000	100,000	² 272,500	² 163,250 00	² 54,500	² 251,500 00	² 18
3	Ellsworth	85,000	97,000	² 60,016	² 25,000 00	² 12,000	² 33,000 00	² 7
1	Ford	18,000	18,000					
2	Franklin	45,000	67,000					
1	Greenwood	15,000	15,000	30,000	18,000 00	6,000	24,000 00	2
1	Harper	25,000	40,000	132,000	92,400 00	26,400	96,400 00	9
7	Harvey	129,500	183,500	¹ 389,000	¹ 245,700 00	¹ 78,000	¹ 315,000 00	² 30
1	Jackson	20,000	20,000	36,000	24,300 00	7,000		3
5	Jefferson	97,000	132,000	¹ 167,198	¹ 121,245 16	¹ 33,590	² 109,379 96	¹ 20
9	Johnson	41,000	55,000	87,000	54,430 00	16,850	64,000 00	9
1	Kingman	20,000	20,000	45,000	25,000 00	8,750	32,000 00	6
9	Labette	182,000	215,000	³ 558,000	⁴ 379,500 00	³ 112,195	⁵ 423,680 00	⁴ 47
9	Leavenworth	206,500	339,000	² 1,293,500	³ 873,300 00	² 259,522	⁵ 588,690 00	² 78
3	Lincoln	68,000	73,000	151,000	90,700 00	30,000	² 75,000 00	8
2	Linn	35,000	45,000	150,500	104,150 00	30,000	¹ 8,000 00	17
2	Lyon	38,000	75,000					
2	Marion	40,000	48,000	92,000	62,500 00	18,500	74,900 00	10
4	Marshall	155,000	275,000	¹ 277,000	¹ 157,050 00	¹ 50,210	² 170,437 00	22
4	McPherson	81,000	92,500	¹ 149,300	¹ 92,085 00	¹ 33,875	¹ 132,000 00	23
4	Miami	40,000	60,000					15
4	Mitchell	125,000	140,000	¹ 203,400	² 152,800 00	¹ 40,680	³ 120,000 00	22
5	Montgomery	85,000	110,000	242,000	166,800 00	51,200	² 107,700 00	22
2	Nemaha	44,500	52,500	¹ 40,800	126,320 00	⁸ 1,160	¹ 35,200 00	11
4	Neosho	30,000	38,500	¹ 58,000	¹ 36,200 00	¹ 11,600	¹ 44,700 00	³ 5
5	Norton	21,000	25,000	³ 40,000	² 24,000 00	³ 8,000	³ 29,000 00	² 7
3	Osage	60,000	68,000	² 95,000	² 60,000 00	² 19,000	² 85,000 00	² 7
1	Osborne	20,000	25,000	60,000	36,000 00	12,000	46,000 00	6
5	Ottawa	27,000	36,300	² 122,000	³ 78,500 00	³ 24,600	³ 94,000 00	¹ 13
2	Pawnee	43,000	60,000	135,000	81,000 00	27,000	100,000 00	⁴ 4
4	Phillips	28,000	36,000	¹ 31,000	¹ 19,050 00	¹ 6,200	¹ 19,900 00	15
4	Pottawatomie	87,500	104,500	83,250	¹ 97,275 00	16,650	² 20,355 00	¹ 6
1	Pratt	34,000	46,000	61,950	40,000 00	13,717	59,500 00	8
2	Rawlins	22,000	25,000	¹ 30,000	¹ 16,000 00	¹ 6,300	¹ 28,800 00	¹ 5
3	Reno	52,000	64,500	75,000	50,050 00	14,493	59,273 75	13
1	Republic	10,000	20,000	6,262	4,302 02	1,252	5,108 00	3
1	Rice	32,000	48,000	59,500	33,900 00	11,250	48,030 00	8
3	Riley	52,000	74,000	¹ 48,500	¹ 46,150 00	¹ 9,700	¹ 50,000 00	11
1	Rooks	10,000	12,000	40,000	20,000 00	8,000	8,000 00	4
2	Russell	39,000	49,000	¹ 110,000	¹ 70,000 00	¹ 22,000	¹ 81,500 00	12
7	Saline	469,000	469,000	556,000	378,200 00	111,700	¹ 488,000 00	¹ 51
2	Sedgwick	135,000	165,000	335,000	247,000 00	71,875	347,900 00	¹ 13
8	Shawnee	355,000	532,000	¹ 1,441,500	¹ 976,750 00	¹ 309,850	¹ 240,000 00	¹ 109
5	Smith	55,000	60,600	² 33,500	² 19,950 00	² 6,700	² 18,000 00	² 6
5	Sumner	125,500	135,500	² 485,000	² 360,750 00	² 97,250	² 548,750 00	² 27
3	Wabunsee	39,000	53,000	² 30,000	² 19,500 00	² 6,000	² 25,000 00	² 5
4	Washington	37,000	48,000	¹ 53,000	² 22,500 00	¹ 10,600	³ 15,000 00	¹ 6
3	Wilson	29,000	33,000	169,000	148,300 00	13,500	² 8,000 00	¹ 6
2	Woodson	18,125	27,000	¹ 30,000	¹ 22,000 00	¹ 6,000	¹ 34,500 00	¹ 4
2	Wyandotte	65,000	77,000	¹ 90,000	¹ 63,000 00	¹ 18,000	¹ 86,341 00	¹ 7
	Totals	\$5,240,025	\$6,870,300	13,220,482	\$8,581,897 43	2,670,332	\$9,642,272 36	1,155

¹ One not reporting. ² Two not reporting. ³ Three not reporting. ⁴ Four not reporting.⁵ Five not reporting.

Fifty-seven mills, representing a combined capital of \$934,900, make no return of any business during the year. Most of them say, in this connection, that they have done no business on account of the scarcity of grain, or else are shut down making repairs or changing to the roller system.

Sixty mills, with a total capital employed of \$1,459,000, fail to show their method of manufacture, whether by rolls or buhrs, or both. Appended will be found a list of 27 of these mills, the only ones of the number which report the grinding of 40,000 bushels or more during the year; the others, grinding less, were as a rule operated only a small part of the time.

<i>No. of returns.</i>	<i>County.</i>	<i>Town or city.</i>	<i>Total capital employed.</i>	<i>No. bushels of grain ground.</i>	<i>Cost of same.</i>	<i>No. lbs. of flour, etc., man'fac'd, reduced to barrels.</i>	<i>Value of product.</i>	<i>Average No. of employes.....</i>
1	Allen	Iola.....	\$8,000	52,500	\$27,250	10,000	\$34,405	5
1	Barton.....	Great Bend.....	30,000	150,000	84,000	22,500	102,800	8
1	Butler.....	Douglass.....	15,000	143,000	77,950	28,600	113,200	6
1	Cowley	Arkansas City..	80,900	112,000	79,800	23,000	86,000	15
1	Dickinson.....	Enterprise	150,000	320,000	160,000	54,000	¹ 200,000	16
1	"	Herington	15,000	52,000	¹ 28,000	10,000	¹ 33,333	5
1	"	Industry	20,000	89,599	38,585	17,919	40,319	2
1	Douglas.....	Lawrence.....	15,000	110,000	¹ 77,000	22,500	99,000	10
1	Ellis	Hays City.....	20,000	75,000	37,000	15,000	36,500	4
1	Kingman	Kingman	20,000	45,000	25,000	8,750	32,000	6
2	Labette	Oswego.....	92,000	390,000	¹ 286,040	78,000	¹ 315,000	24
1	Leavenworth....	Leavenworth...	7,060	50,000	25,000	10,000	40,000	7
1	Marion.....	Peabody	10,000	40,000	26,000	8,000	31,400	6
1	Marshall.....	Blue Rapids....	15,000	42,000	20,900	8,400	28,650	3
1	Mitchell.....	Beloit.....	50,000	150,000	115,000	30,000	120,000	10
1	"	Cawker City ...	35,000	47,200	37,800	9,440	¹ 42,000	5
1	Montgomery....	Cofferville	10,000	70,000	41,500	12,000	64,000	4
1	Nemaha.....	Sabetha.....	12,500	40,800	26,320	8,160	35,200	6
1	Osage	Quenemo.....	25,000	95,000	60,000	19,000	85,000	7
1	Pottawatomie...	Wamego	35,000	55,200	39,720	11,040	¹ 47,000	8
1	Saline	Assaria.....	12,000	40,000	24,000	8,000	34,000	5
1	"	Brookville.....	35,000	104,000	62,400	20,800	92,000	10
2	"	Salina	250,000	357,000	268,300	70,400	335,000	¹ 38
1	Sumner.....	Wellington.....	70,000	375,000	281,250	75,000	489,280	6
1	Wilson.....	Neodesha.....	15,000	59,000	41,300	11,500	¹ 57,000	3
27	Totals.....	.....	\$1,038,500	3,064,299	\$1,990,115	602,009	\$2,584,687	219

¹ One mill estimated.

TABLE COMPILED FROM THE REPORTS TO THE BUREAU OF 16 OF THE LARGEST MILLS OF THE STATE, LOCATED IN THE PRINCIPAL CITIES.
ONLY THOSE MILLS INCLUDED WHICH MAKE FULL REPORTS.

No of mills.....	Town or city.	Value of mills.	No. of days run, (12 hours.).....	Average No. of days run, (12 hours.).....	Total capital employed.....	Capacity in barrels, (24 hours' run.).....	Av. capacity in bbls., (12 hours' run.).....	No. sets of rolls ..	No. of buhrs.....	No. bushels of grain ground...	Cost of same.	No. pounds flour, &c., manufactured, reduced to barrels.....	Value of product.	Av. No. of employees.....
4	Atchison.....	\$215,000	1,683	421	\$365,000	1,350	169	96	5	852,702	\$618,225.50	184,118	\$882,317.92	68
2	Lawrence..	135,000	725	362½	210,000	750	187½	47	6	450,000	255,000 00	90,000	1,390,000 00	27
2	Leavenworth.....	175,000	1,032	516	305,000	1,100	275	119	3	1,200,000	822,500 00	1,240,000	1,930,000 00	60
6	Topeka.....	325,000	1,894	331	498,000	2,160	180	124	15	1,423,500	968,750 00	306,250	1,221,000 00	103
2	Wichita.....	135,000	830	415	165,000	600	150	34	5	335,000	247,000 00	71,875	347,000 00	129
16	Totals.....	\$985,000	6,164	2,045	\$1,543,000	5,960	961½	420	34	4,261,202	\$2,941,475.50	892,243	\$3,720,317.92	287

¹ One not reporting.

The table on the following two pages includes all of the mills grinding 40,000 bushels of grain and upwards during the year which made full reports to the Bureau, giving the days run, number of rolls, number of buhrs, etc. Five fail to give the value of product and one the number of hands employed. With these exceptions the reports are complete.

TABLE SHOWING THE MILLS THAT GRIND 40,000 OR MORE BUSHELS OF GRAIN, ETC.

<i>No. of returns</i>	<i>County.</i>	<i>Town or city.</i>	<i>Value of mill.</i>	<i>No. of days run (12 hours).....</i>	<i>Total capital employed.</i>	<i>Capacity in bbls., 24 hours run.....</i>	<i>No. sets of rolls.....</i>	<i>No. sets of buhrs...</i>	<i>No. of bushels of grain ground.</i>	<i>Cost of same.</i>	<i>No. pounds of flour, etc., manufactured, reduced to bbls.....</i>	<i>Value of product.</i>	<i>No. of employes ...</i>
1	Allen	Humboldt	\$69,000	200	\$90,000	450	20	20	200,000	\$160,000 00	40,000	\$188,000 00	12
1	Barton	Ellinwood	17,000	300	25,000	100 10	2	2	40,000	25,000 00	6,675	35,000 00	8
1	Barton	Great Bend	69,000	400	75,000	275	17	17	210,000	126,000 00	33,600	196,000 00	15
1	Bourbon	Patton	15,000	300	50,000	100	4	2	75,000	60,000 00	15,000	100,000 00	5
1	Butler	Augusta	125	450	30,000	125	9	1	41,518	26,917 85	9,028	31,320 65	5
1	Chautauqua	Hart's Mill	4,000	600	8,000	50	16	2	50,000	30,000 00	10,000	48,000 00	4
1	Cherokee	Lowell	7,000	450	14,000	60	16	2	50,000	33,300 00	10,000	48,000 00	9
2	Clay	Clay Center	60,000	364	75,000	300	22	4	123,800	84,350 00	24,700	120,000 00	14
1	"	Morganville	12,000	250	18,000	75	16	2	51,500	27,575 00	7,125	37,000 00	4
1	"	Arkansas City	80,000	562	150,000	400	35	2	250,000	175,000 00	50,000	200,000 00	20
1	"	Winfield	75,000	1,525	75,000	600	36	1	350,000	262,500 00	70,000	325,000 00	16
1	"	Pittsburg	21,800	196	25,000	80	7	3	43,287	28,300 30	10,587	38,477 08	6
1	"	Walnut	6,000	175	7,000	40	2	2	40,000	16,000 00	8,000	18,000 00	2
1	"	Abilene	70,500	455	100,000	390	20	8	116,000	75,600 00	25,000	106,620 00	13
1	Dickinson	Wathena	20,000	300	40,000	150	9	2	75,000	50,000 00	15,000	70,000 00	5
1	Doniphan	Hays City	25,000	280	40,000	150	16	1	160,000	100,000 00	32,000	140,000 00	10
1	Ellis	Wilson	25,000	270	32,000	150	5	4	60,016	35,000 00	12,000	32,000 00	7
1	Ellsworth	Harper	25,000	280	40,000	150	18	1	132,000	92,400 00	26,400	96,400 00	9
1	Harvey	Halstead	66,000	450	105,000	450	37	1	205,000	143,000 00	41,000	181,500 00	13
2	"	Newton	35,000	400	50,000	200	21	2	140,000	84,000 00	28,000	112,000 00	12
1	Jefferson	Valley Falls	35,000	265	50,000	150	7	2	75,000	60,000 00	15,000	70,000 00	6
1	"	De Soto	16,000	250	20,000	85	10	3	47,000	31,430 00	8,350	34,000 00	4
1	Johnson	Olathe	25,000	240	35,000	100	12	4	40,000	23,000 00	8,500	30,000 00	5
2	Labette	Parsons	50,000	600	75,000	250	20	4	121,000	89,000 00	24,520	118,000 00	15
1	Lincoln	Lincoln	40,000	300	40,000	125	6	2	90,000	54,000 00	18,000	73,000 00	4
1	"	Shady Bend	20,000	240	25,000	75	5	1	50,000	30,000 00	10,000	40,000 00	3
1	"	Pleasanton	30,000	450	40,000	125	17	2	135,000	95,000 00	27,000	112,000 00	13
1	Lynn	Marion	65,000	300	38,000	75	5	1	52,000	36,500 00	10,500	43,500 00	4
1	Marion	Marysville	20,000	430	21,000	100	6	1	104,500	65,160 00	37,810	141,787 00	11
1	Marshall	McPherson	17,000	220	25,000	150	7	2	215,000	124,300 00	25,000	85,000 00	7
1	McPherson	Cherryvale	20,000	200	25,000	100	10	1	40,000	30,000 00	8,800	40,200 00	3
1	Montgomery	Elk City	15,000	200	25,000	100	10	1	48,000	30,000 00	8,800	40,200 00	3
1	"	Independence	25,000	280	30,000	125	14	2	80,000	62,500 00	20,000	74,000 00	8
1	Osborne	Downs	20,000	300	25,000	100	6	1	60,000	36,500 00	12,000	46,000 00	6
1	Ottawa	Bennington	9,000	240	18,000	100	9	2	60,000	43,500 00	12,000	54,000 00	7
1	"	Minneapolis	6,000	150	6,000	100	6	1	60,000	35,000 00	12,600	40,000 00	3
2	Pawnee	Larned	43,000	460	60,000	200	13	1	60,000	41,000 00	27,000	100,000 00	8
1	Pratt	Saratoga	34,000	295	46,000	100	10	4	135,000	81,000 00	13,717	59,500 00	18
1	Itano	Nickerson	28,000	180	40,000	150	13	4	67,500	47,250 00	12,993	54,573 75	6

1	Rice.....	32,000	200	48,000	125	5	2	59,500	33,900 00	11,250	48,030 00	8
1	Riley.....	30,000	150	30,000	125	10	4	46,500	45,150 00	9,300	49,000 00	4
1	Rooks.....	10,000	200	12,000	50	4	2	40,000	20,000 00	8,000	28,000 00	4
1	Russell.....	25,000	320	35,000	150	6	2	110,000	70,000 00	22,000	81,500 00	8
1	Sumner.....	30,000	260	40,000	150	13	.....	85,000	59,500 00	17,250	77,500 00	10
1	Wyandotte.....	30,000	308	42,000	120	12	.....	90,000	63,000 00	18,000	86,341 00	7
50	Totals.....	\$1,395,3000	14,010	\$2,040,000	7,400	563	72	4,386,371	\$2,940,733 75	873,365	\$3,749,859 48	355

^a Estimated.

It will be seen that the 66 mills in the last two tables represent nearly \$3,000,000 of the total capital, and ground 8,647,573 of the 13,220,482 bushels reported, or considerably more than one-half, and if we add the 27 mills included in the table immediately preceding, we find that these 93 mills represent over two-thirds of the capital reported, and that they ground 11,711,802 bushels of the grain. Perhaps the following will show it in a more intelligible form.

Table of mills grinding more than 40,000 bushels of wheat during the year, compiled from the three preceding tables:

<i>Tables.</i>	<i>No. of mills.</i>	<i>Capital.</i>	<i>Bus. grain ground.</i>	<i>Cost of same.</i>	<i>No. barrels of flour, &c., manufact'd.</i>	<i>Value of product</i>
First table.....	27	\$1,038,500 00	3,064,299	\$1,990,115 00	602,009	\$2,584,087 00
Second table.....	16	1,543,000 00	4,261,202	2,941,475 50	892,243	3,720,317 92
Third table.....	50	2,040,000 00	4,386,371	2,940,733 75	873,365	3,749,859 48
Totals.....	93	\$4,621,500 00	11,711,872	\$7,872,324 25	2,367,617	\$10,054,264 40

In the original tables several of the mills failed to report the value of product, and foot-notes accompanying those tables call attention to the fact. In compiling the above tables these amounts have been estimated, thus making the total value of product larger than is shown in the general summary given below, where only the number of mills actually reporting each item are recorded. The following is a general summary of the returns:

240 mills report the value of mills and machinery.....	\$5,240,025 00
241 mills report the total amount of capital employed, including mills and machinery.....	\$6,870,300 00
150 mills report a total capacity in barrels—24 hours' run.....	19,617
129 mills report sets of rolls used.....	1,373
132 mills report number of buhrs used.....	303
181 mills report number of bushels of grain ground from July 1, 1887, to June 30, 1888.....	13,220,482
169 mills report cost of same.....	\$8,581,897 43
180 mills report number of pounds of flour, etc., manufactured, not including offal.....	533,111,586
Reduced to barrels.....	2,670,332
143 mills report an aggregate value of product.....	\$9,642,272 36
137 mills report number of days run during the year, counting day and night as two days.....	33,587
194 mills report the aggregate average of hands employed during the year.....	1,155
131 mills used steam alone.	
82 mills used water alone.	
20 mills used both water and steam.	
3 mills used wind.	
1 mill used wind and steam.	

In the sixteen large merchant mills, given in the separate table, having a capacity in twenty-four hours of 5,960 barrels, 420 sets of rolls were used

and only thirty-four buhrs; while the other fifty mills, grinding 40,000 bushels of grain and upwards, which make full reports, with a grinding capacity of 7,400 barrels in twenty-four hours, used 563 rolls and seventy-two buhrs. These sixty-four ground 8,647,573 bushels out of the total of 13,220,482, or nearly sixty-five and one-half per cent. In nearly all of these mills the buhrs were used in grinding corn or feed, the flour being made on the rolls. One hundred and sixty-one mills reported the number of rolls and the number of buhrs used. Twenty-nine mills used rolls alone, thirty-three used buhrs alone and ninety-nine used both, the 161 mills using in the aggregate 303 buhrs and 1,373 sets of rolls.

Two hundred and forty mills report the aggregate value of mills and machinery as \$5,240,025—an average of \$21,833.44 against an average last year of \$20,865.87. Two hundred and forty-one mills report an invested capital of \$6,870,300—an average of \$28,507.47, against an average last year of \$25,809—and of the year before of \$22,919.23, showing a gradually averaging increase for the individual mill. The average amount of money, aside from the value of mills and machinery (the difference between \$21,833.44 and \$28,507.47) required to operate each establishment, was \$6,674.03, against \$4,943.13 last year.

One hundred and eighty-one mills ground 13,220,482 bushels of grain, an average for each mill of 73,041 bushels against an average last year of 74,784 bushels.

One hundred and thirty-seven mills run 33,587 days, counting a day and night run as two days. This would give an average to each of a fraction more than 245 days, or about the same as last year. Dividing the average bushels of grain ground (73,041), by the average number of days run (245) gives a fraction more than 298 bushels per day of twelve hours, against 305 bushels last year; or, allowing five bushels to the barrel, fifty-nine and three-fifths barrels.

One hundred and sixty-nine mills paid \$8,581,897.43 for grain, equaling \$50,780.45 each, against an average of \$45,206.08 last year—a slight increase. Estimating that each mill ground 73,041 bushels, this sum would represent 12,343,929 bushels, costing an average of about 73½ cents.

One hundred and eighty mills report producing 533,111,586 pounds of flour, etc., manufactured, not including offal, or an average of 2,961,731 pounds. Reduce this product to barrels, and it gives for each mill 14,808 barrels as the product for the year, or about 60½ barrels for each day of 12 hours run (the average days of 12 hours run being 245.) By referring to the number of bushels of grain ground by the 181 mills reporting, it will be seen that they averaged 73,041 bushels, or 298 for each of the 245 days. This 298 bushels presumably produced the 60½ barrels, showing the average bushels per barrel to have been about 4¼, or, counting 60 pounds to the bushel, 4 bushels and 56 pounds.

One hundred and forty-three mills report the value of product for the year to have been \$9,642,272.36. This gives to each \$67,428.48 against an average last year of \$65,016.33. In other words, the average number of bushels ground last year was 74,784, average cost of same \$45,206.08, and average value of product \$65,016.33, against 73,041 bushels this year costing \$50,708.45, and producing \$67,428.48. The grain cost per mill \$5,574.37 more for 1,743 bushels less, and the value of product was \$2,412.15 greater this year than last; or, deducting the difference between the cost of grain and the value of product, we find it to be \$16,648.03, against \$19,810.25 last year, a difference of \$3,162.22 in favor of last year. Twenty-nine mills used rolls alone, numbering in the aggregate 425, with a producing capacity in barrels each 24 hours of 4,655, against 20 mills last year, producing 3,835. Thirty-three used buhrs alone, 76 in number; 22 of these mills had a grinding capacity of 1,397 barrels each 24 hours. Last year 49 mills used 111 buhrs and no rolls, and 39 of these could grind 1,940 barrels each 24 hours. Of the mills using rolls and buhrs together, 3 used 6 buhrs each, with an aggregate of 14 sets of rolls, or a total of 18 sets of buhrs to 14 sets of rolls, and had a grinding capacity each 24 hours of 460 barrels; last year there were five mills with six buhrs each, and a total of 50 sets of rolls, or in all 30 buhrs and 50 rolls, with a capacity of 1,110 barrels. Four mills used five buhrs each, and in all 32 sets of rolls, or 20 buhrs and 32 rolls; the capacity of these four mills is set down as 685 bbls. each 24 hours, against five with five buhrs each, or 25 buhrs and 41 rolls reporting last year, producing in 24 hours 935 bbls. Eleven mills report four buhrs each, or a total of 44 buhrs and 66 sets of rolls, grinding 1,245 barrels each 24 hours, against 13 last year, with four buhrs each, or 52 buhrs and 65 sets of rolls, grinding 1,390 bbls. Seventeen mills report using three buhrs each, or in all 51 buhrs and 249 sets of rolls, producing 3,135 bbls. each 24 hours, against 22 mills last year with 3 buhrs each, or 66 buhrs and 280 sets of rolls with a capacity of 3,605 bbls. Thirty mills used 2 buhrs each, or 60 in all, and 217 sets of rolls; capacity, 3,225 bbls., against 32 mills last year, with 2 buhrs each, or 64 buhrs and 201 sets of rolls, producing 2,896 barrels. And thirty-four mills reported one buhr each, or 34 buhrs and 362 sets of rolls grinding 4,270 barrels each 24 hours, against 31 mills last year, or in all 31 buhrs and 323 sets of rolls, with a capacity of 3,360 barrels. It will be seen that the mills relying chiefly or altogether upon buhrs as a means of production are decreasing in number, while those using rolls as their chief method are increasing. Most of the large roller mills report using at least one buhr, and in some instances two. These buhrs are used for feed, etc. One hundred and fifty mills report an aggregate grinding capacity in bbls. each 24 hours of 19,617. The following table shows that 110 of these mills, representing 15,285 of these 19,617 bbls. or about 78 per cent. used only 145 buhrs and 1,253 sets of rolls.

	No. of mills re- porting.	Total No. of buhrs used.	Total No. of sets of rolls used.	Grinding capacity in barrels each 24 hours.
Using all rolls.....	29	.....	425	4,655
Using 1 buhr.....	34	34	362	4,270
Using 2 buhrs.....	30	60	217	3,225
Using 3 buhrs.....	17	51	249	3,135
Total.....	110	145	1,253	15,285

Three hundred and three buhrs were used by 132 mills, and 1,373 sets of rolls by 129 mills. Deduct the 145 buhrs and the 1,253 sets of rolls, which represent 78 per cent. of the grinding capacity of these rolls and buhrs, it leaves 158 buhrs and 120 sets of rolls to represent the other 22 per cent., or in other words, about 53 per cent. of the buhrs and less than 9 per cent. of the rolls represented, about 22 per cent. of the joint productive capacity, while 91 per cent. of the rolls and 47 per cent. of the buhrs represented the other 78 per cent.

Last year 150 mills reported in use 379 buhrs, and 130 mills 1,244 sets of rolls; the year previous 163 mills reported using 420 buhrs and 103 mills 908 sets of rolls. This year 132 mills report 303 buhrs and 129 mills 1,373 sets of rolls. In 1885 139 mills reported 416 buhrs and 79 mills 604 sets of rolls. The following table gives the result in a more concise form:

Year.	No. of mills re- porting.	No. of buhrs.	No. of mills re- porting.	No. of sets of rolls.	Per- centage of buhrs.	Per- centage of rolls.
1885.....	139	416	79	604	40.78	59.22
1886.....	163	420	103	908	31.62	68.38
1887.....	150	379	130	1,244	23.35	76.65
1888.....	132	303	129	1,373	18.08	81.92

In the four years the proportion of buhrs used has dropped from nearly 41 per cent. to about 18 per cent., while rolls have increased from 59 to nearly 82 per cent. In the matter of motive power, of the 237 mills reporting, $55\frac{8}{100}$ per cent. used steam alone, $34\frac{6}{100}$ per cent. used water alone, $8\frac{4}{100}$ per cent. used both, $1\frac{2}{100}$ per cent. used wind, and $\frac{4}{100}$ of one per cent. used wind and steam.

Allen county paid a salesman \$50 per month, and a book-keeper the same. This mill employed two second millers, paying them \$2.50 per day for twelve hours' work; two engineers, working the same number of hours, \$2.60; two teamsters, working ten hours per day, received \$7 per week; and three laborers, \$1 per day each for ten hours' work. No change in wages from previous year.

Anderson county paid a book-keeper \$40 per month, first miller \$3.50 per day, second miller \$1.75, and one engineer \$1.75.

Atchison county: One mill paid its manager \$150 per month, one salesman \$125, one book-keeper \$75, and one clerk \$60. The foreman received

\$5 per day, the first miller \$5, second miller \$3, millwright \$3.50, two engineers \$3 per day each, two teamsters \$2.75, two apprentices \$1.50, and ten to twelve laborers also \$1.50 per day each. All worked ten hours per day, and wages remained unchanged. Another mill paid a salesman \$100 per month, a book-keeper \$75, foreman \$2 per day, first miller \$3, second miller \$2.50, two engineers \$3 each, two teamsters \$1.70, and six laborers \$1.50. No change in wages. Another paid its first miller \$3.33 per day, second miller \$2.50, two engineers \$1.87½ each, and one teamster \$1.50, all working twelve hours; and six laborers \$1.33¼ per day of ten hours. Wages same as preceding year. Another paid a salesman \$75 per month, book-keeper \$50, foreman \$1.66 per day of ten hours; first miller \$4.16, two second millers \$2.50, two engineers \$2.25, four packers \$2, all working 12 hours; one teamster \$2.50 for 10 hours, and four laborers \$1.50 for 10 hours. Wages unchanged.

Barton county: One mill paid a salesman \$45 per month, first miller \$3 per day, second miller \$2, millwright \$2.50, engineer \$2, teamster \$1.25, apprentice 50 cents, and two laborers \$1.25 each; all worked 10 hours. No change in wages. Another mill paid its manager \$100 per month, salesman \$100, book-keeper \$45, foreman \$2.50 per day, first miller \$2.50, second miller \$2, two engineers \$2 each, all working 12 hours; one teamster \$1.50, and 9 laborers \$1.35 for 10 hours.

Bourbon county: Manager \$75 per month, two salesmen \$50 each and one book-keeper \$75, first miller \$125 per month, second miller \$50, two engineers \$50 each, one teamster \$35, two apprentices \$30 each, and three laborers \$25 each. All worked 12 hours; wages unchanged.

Brown county: First miller \$3, engineer \$1.50, teamster \$1, two laborers \$1 each. All worked 10 hours; wages unchanged.

Butler county: One mill paid a manager \$85 per month, first miller \$2.50, second miller \$1.50, engineer \$2.30, teamster \$1.25. All worked 12 hours; wages same. Another paid a book-keeper \$50, first miller \$2.50 per day, second miller \$1.30, teamster \$1.25; hours of labor 18 daily. Wages same. Another worked 10 hours; paid the first miller \$2.50, engineer \$1.50; wages same. Another paid the manager \$75 per month and the miller \$2.50 per day of 10 hours.

Cherokee county: Salesman \$75 per month, first miller \$3.75 per day, second miller \$2.25, two engineers \$2 each, four laborers \$1.25 each; 12 hours per day.

Clay county: One mill paid a manager \$52 per month and a salesman the same, first miller \$2, second miller \$1.50, millwright \$2, engineer \$1.50, teamster \$1.50, apprentice \$1.25. Another worked 11 hours, paid a book-keeper \$75 per month, first miller \$3.50 per day, second miller \$2, engineer \$2.50, and three laborers \$1.75 each. Another paid a clerk \$50 per month, miller \$2.70 per day, engineer \$1.50, and two laborers \$1.50 each; all worked 10 hours.

Cloud county: One book-keeper \$50 per month, miller \$2 per day, teamster and 2 laborers \$1.25 each, wages decreased 15 per cent.

Coffey county: First miller \$40 per month, second miller \$30, teamsters \$30; work from 6 o'clock A. M. to 6 o'clock P. M.

Cowley county: One mill reports a manager at \$75 per month, a salesman and a book-keeper at the same, a foreman at \$3 per day of ten hours, a first miller at \$3 for twelve hours, two second millers at \$2 each, three teamsters at \$1.50 per day of ten hours, and five laborers at \$1.50. Another mill paid its manager \$150 per month, two salesmen \$125 each, one book-keeper \$75, foreman \$4.81 per day, first miller \$2.50, second miller \$2, millwright \$2.50, engineer \$2.25, two teamsters \$1.50 each, and six laborers at \$1.50; all worked twelve hours.

Crawford county: One mill paid a book-keeper \$50 per month, first miller \$2.25 per day, engineer \$2.50, apprentice \$1, watchman \$1.25; all worked twelve hours. Another paid a clerk \$52 per month, first miller \$2.75 per day, second miller \$1.67, engineer \$1.50, teamster \$1, two laborers \$1.50 each.

Dickinson county: One mill paid a salesman \$75 per month, and a book-keeper the same, first miller \$75, and two laborers \$40 each. Another paid \$75 per month each to a book-keeper and a salesman, foreman \$3 per day of twelve hours; first miller \$3, two second millers \$2 per day each, two engineers \$2, and one laborer at \$1.50. Another paid a manager \$70 per month, first miller \$2.50 per day, second miller \$1.50, engineer \$1.75, teamster \$1.50, and laborer \$1.50; work eleven hours.

Doniphan county: One mill paid its miller \$2 for day of twelve hours, engineer \$1.50 and laborer \$1.25. Another paid for eleven hours, first miller \$2.50, second miller \$1.75, teamster with team \$2.50, and laborer \$1.50. Another paid first miller \$3, second miller \$1.50, engineer \$1.75 and a teamster and laborer \$1.25 each.

Douglas county: One mill paid a book-keeper \$40 per month, miller \$3 per day of ten hours, engineer \$2, teamster with team \$2.50, and six laborers from \$1.25 to \$1.50. Another paid a salesman and a book-keeper \$100 per month each, a clerk \$50, foreman \$75, first miller \$100, two second millers \$60 each, one millwright \$75, one teamster \$40, and six laborers \$32.50 each; all worked ten hours.

Edwards county: Worked eleven and a half hours per day; miller \$2, engineer \$2.50, two apprentices \$1.50 each, and one laborer \$1.25.

Ellis county: Manager and salesman \$75 per month each, book-keeper \$50, three clerks at \$60, \$40 and \$50, first miller \$100, second millers \$60, engineers \$60, and teamsters \$40; wages had decreased ten per cent.

Ellsworth county: One manager \$75 per month, one book-keeper \$50, miller \$75, engineer \$65, teamster \$65, and two laborers at \$45; hours worked, twelve.

Harper county: Manager \$100 per month, book-keeper \$50, foreman \$2.50 per day of twelve hours, miller \$2, engineer \$3, teamster \$1.75, three laborers \$1.50 each.

Harvey county: One mill paid \$75 per month to its manager, and \$50 to a salesman, miller \$3.20 per day of eleven hours, and engineer \$2.30; wages fell about five per cent. Another paid—manager \$150, salesman \$85, and book-keeper \$100 per month, first miller \$3, and second miller \$2 per day. Another—manager \$125, and book-keeper \$85, first miller \$75, second miller \$55, two engineers at \$50 each, one apprentice \$20, and three laborers at \$35 per month for day of twelve hours.

Jefferson county: Manager \$45, first miller \$2 per day, second miller \$1.90, teamster \$1.20, laborers \$1.15. Another, salesman \$30, first miller \$2.75 per day of eleven hours, second miller \$1.25, two teamsters at \$1.25 each, and two laborers at \$1.25. Another paid its miller \$2.50 per day of ten hours, teamster \$1.25, and two laborers \$1.25 each. Another, \$40 per month for a salesman, and the same for a book-keeper, first miller \$65, second miller \$40, teamster \$1.25 per day; all worked nearly twelve hours per day. Wages had declined.

Johnson county: Miller \$2, engineer \$2, teamster \$1.25, one laborer at \$1.50, and one at \$1; the miller and engineer worked ten hours per day, and the teamster and laborers nine. Another paid first miller \$2, and second miller \$1.50 per day of ten and a half hours, engineers \$2 for eleven hours, and a teamster and laborer \$1.25 each for a ten-hour and a ten-and-a-half-hour day respectively.

Labette county: First miller \$3 per day of twelve hours, second miller \$2 per day of ten hours, engineer \$1.50 for ten hours, teamster \$1 for twelve hours, and two laborers \$1 each for ten hours. Another, miller \$2, and engineer \$1.25 for day of ten hours. Another ran ten hours per day, paying miller \$1.50, engineer \$1.25, teamster and laborer \$1 each. Another, miller \$3, engineer \$2, teamster and laborer \$1.25 each; ran twelve hours. Another, manager \$100 and clerk \$35 per month, first miller \$3 per day of eleven hours, second miller \$2, engineer \$2, teamster \$1.25, and two laborers \$1.25 each.

Leavenworth county: Salesman, \$36 per month, engineer \$1.50, teamster \$1.25, and apprentice \$1 per day. Another, two salesmen \$100 per month each, and a book-keeper \$70, a foreman \$2 per day of ten hours, first miller \$6 and two second millers \$3 each per day of twelve hours, millwright \$3 for ten hours, four engineers and firemen \$1.75 each per day of ten to twelve hours, one teamster \$1.75 for ten hours, and twenty-three laborers each \$1.50 for ten hours. Another paid four managers \$100 per month each. Two first millers \$4 and \$3, and four second millers \$3 and \$2 per day of twelve hours. Two to ten millwrights \$2.50 to \$3 for ten hours, three engineers \$2 to \$4 for ten to twelve hours, three to five teamsters \$1.50 each for ten hours, and six to ten laborers from \$1.25 to \$1.50 for ten hours. Wages had advanced ten per cent.

Lincoln county: Foreman \$3 per day of ten hours, first miller \$3, second miller \$2, teamster \$1.25 and laborer \$1.25.

Linn county: Manager \$100 per month, salesman \$50 and clerk \$50, first miller \$4 for ten hours, two second millers \$1.50 each for eleven hours, two engineers \$2 each for eleven hours, teamster \$1.25 and four laborers \$1.25 each for ten hours.

Lyon county: Miller \$2.50 for twelve hours, and teamster \$1.25. Another, first miller \$1.75 for eleven hours, second miller \$1.50 and engineer \$1.75.

Marion county: First miller \$3 per day of twelve hours, second miller \$2, teamster \$1.50, and laborer \$1.50.

Marshall county: Salesman \$100 and book-keeper \$75 per month, teamster \$1.50 and laborer \$1.25 per day. Another, bookkeeper \$116 per month, foreman \$2.50 and first miller \$4 per day of ten hours; two second millers \$2.50 each per day of twelve hours; two teamsters \$1.75 each for twelve hours, and four laborers \$1.50 each for ten hours.

McPherson county: Book-keeper \$60 per month, first miller \$90, second miller \$50, and two engineers at \$52.50 each per month for day of twelve hours; one teamster at \$35 and two laborers at \$40 each for ten hours; wages increased from 10 to 15 per cent. Another, first miller \$2 per day, second miller \$1.75, two engineers at \$2 each, teamster \$1.50, apprentice \$1.25, and laborer \$1.50. Another, manager \$65 and book-keeper \$50 per month, miller \$2.30, engineer \$1.50, and three laborers at \$1.25 per day each.

Miami county: A book-keeper at \$26 per month, miller \$1.50 per day for ten hours, engineer \$1.50, teamster \$1.25, and laborer \$1.25.

Mitchell county: First miller \$3 per day, second miller \$55 per month, teamster \$35 and two laborers at \$39.

Montgomery county: Miller \$2.50 for day of ten hours, engineer \$1.50, teamster \$1.15, and laborer \$1; wages had decreased. Another, miller \$3.50 for day of eleven hours, engineer \$1.50, and apprentice \$1.25. Another, first miller \$2.50, second miller \$1.50, two engineers \$2 each, teamster \$1, apprentice 80 cents, and two laborers \$1 each; all worked eleven hours. Another, miller \$3 for twelve hours, teamster \$1, and laborer \$1.25.

Nemaha county: First miller \$1.50 for ten hours, second miller \$1, millwright \$2.50, engineer \$2, teamster \$1.25, and laborer \$1.

Neosho county: First and second millers \$2 each, for 12 hours; teamster \$1, and two laborers at \$1 each. Another: Miller \$2, for 12 hours; engineer \$1.25, and teamster \$1.

Norton county: First miller \$1.50, second miller \$1.25, laborer \$1. Another: Foreman \$2.30, for 12 hours; second miller \$1 for 10 hours, and teamster \$2. Wages increased 25 per cent.

Osborne county: First miller \$2.75 for 12 hours; second miller \$2.25; teamster \$1.40 for 10 hours; two apprentices \$1.25 each, for 12 hours, and one laborer \$1.25, for 10 hours. Wages reduced 20 per cent.

Ottawa county: Manager \$60, and clerk \$40 per month; miller \$50 per month for day of 10 hours; engineer \$50, teamster \$40, and two laborers at \$40 each.

Pawnee county: Foreman \$2.50 for 11 hours, engineer \$2.50, teamster \$1, and laborer \$1; wages of teamster and laborer decreased 25 per cent. Another, miller \$2.50 for 12 hours, engineer \$2, teamster \$1 and laborer \$1.

Phillips county: Millwright \$3 to \$3.25 per day, laborers \$1.25 per day.

Pottawatomie county: Salesman \$50 per month, miller \$75, engineer \$50 per month and teamsters \$35; all work 10 hours; wages decreased 10 per cent.

Pratt county: Manager \$100 and clerk \$50 per month, first miller \$3 per day of 12 hours, second miller \$2, millwright \$2.50, engineer \$2, teamster \$1.25, and laborer \$1.25 for 10 hours.

Rawlins county: Book-keeper \$60 per month, miller \$4 per day, engineer \$2.50 and two laborers, one at \$20 and the other at \$30 per month.

Reno county: Millwright \$2.50 per day, and engineer \$1.75 for ten hours. Another—salesman \$75 per month, foreman \$2.30 for day of twelve hours, miller \$4.16 $\frac{2}{3}$, engineer \$4.16 $\frac{2}{3}$, and two laborers at \$1.25 each.

Republic county: First miller \$2.50 per day, second miller \$2, laborer \$1.50.

Rice county: Foreman \$1.75 for ten hours, miller \$3.65, two engineers \$2.30 each, and two laborers at \$1.35 each.

Riley county: One clerk at \$60 per month, miller \$2 for day of eleven hours, and one teamster \$1.50 for ten hours. Another—miller \$2 for ten hours, teamster \$1.25, and laborer \$1.25; wages decreased ten per cent. Another—salesman \$75 per month, and book-keeper \$50, first miller \$3, per day, second miller \$1.50, engineer \$3, and teamster \$1.25.

Rooks county: Manager \$50, clerk \$30, first miller \$75, second miller \$40, and teamster \$25 per month; hours per day, twelve.

Russell county: Manager \$70 and book-keeper \$50 per month, miller \$4 and engineer \$2.50 per day of twelve hours, teamster \$1 and three laborers \$1.25 each per day of ten hours; wages had decreased 10 per cent.

Sedgwick county: Two salesmen at \$80 per month each, one bookkeeper at \$60, and one grain buyer at \$60, two second millers at \$2.50 per day each, hours of work, twelve; one engineer at \$2.50, two teamsters at \$1.50 for ten hours, and three laborers at \$1.50. Another, salesman \$100, book-keeper \$65 and clerk \$65, per month, first miller \$3.85 for day of ten to eleven hours, second miller, \$2.50, engineer \$3, teamster \$2, and six laborers at \$1.50.

Shawnee county: Manager \$250, salesman \$100 and two book-keepers at \$75 per month; foreman \$4 per day of ten hours, first miller \$4, second miller, \$3, millwright, \$2.50, engineer \$2.50, teamster \$2, and eight laborers at \$1.50 each. Another, salesman \$83.33 and book-keeper \$83.33 per month; two foremen and first millers at \$4.35 each per day of ten hours, two second millers at \$2.75 each for eleven hours, three engineers and firemen at \$2.20 each, one teamster at \$2.20 for ten hours, and five laborers at \$1.50 each. Another, foreman \$5 per day, first miller \$3.33, two second

millers \$3 each, one millwright \$3, one engineer \$3 and two at \$1.75 each, one teamster \$3 and sixteen laborers at \$1.50 each. Another, two managers at \$125 each per month, two salesmen at \$90 each, and one book-keeper at \$75; one foreman at \$5 per day, one first miller at \$3, one second miller at \$3, millwright, \$2.75, three engineers at \$2.75 each, one teamster \$2.50, two apprentices at \$1.50 each, two laborers at \$2.75 each and five at \$1.50 each. Another, salesmen and book-keeper \$60 per month; miller \$2.50 for eleven hours, engineer \$2.50 for twelve hours, five teamsters at \$1.50 each, and four laborers at \$1.50 for eleven hours; wages increased about ten per cent. Another, foremen \$2.50 for ten hours, miller \$2.50, engineer, \$2.50, two teamsters at \$1.50 each, and one laborer \$1.50. Another, manager at \$75, two salesmen at \$55 each, and one book-keeper at \$75 per month; one miller and engineer at \$2.75 for ten hours, two teamsters at \$1.50 each, and two laborers at \$1.25 each.

Smith county: First miller \$2.50, second miller \$2, teamster \$1.25, laborer \$1.25. Another: Miller \$2, for 12 hours, teamster \$1.25, for 10 hours. Wages decreased 20 per cent.

Sumner county: Manager \$50 per month, miller \$2.50 per day, engineer \$1.50, laborer \$1.50. Another: Miller \$2.50 per day of 12 hours, teamster \$15 per month, with board. Another: Salesman \$2.50 per day, book-keeper \$1.75, first miller \$2, two second millers \$1.50 each, one engineer at \$2, and one at \$1.50; one teamster at \$1.25, and two laborers at \$1.25 each.

Wabaunsee county: One book-keeper at \$40 per month, miller \$2 for 12 hours, engineer \$2, and laborer at \$1.50.

Washington county: First miller \$2, second miller \$1.50. Another: Book-keeper \$50 per month, engineer \$1.50, and laborer \$1.50, for day of 10 hours.

Woodson county: First miller \$2.50 for 11 hours, second miller \$1.50, teamster \$1.25, engineer \$1.50.

Wyandotte county: Manager \$100, salesman \$65, book-keeper \$100, first miller \$2.50, second miller \$1.50, engineer \$2.50, 2 teamsters at \$1.85 each. All worked 11 hours except teamsters, who worked 10. Wages advanced about 10 per cent.

A mill in Barton county reports a decrease in wages of 10 per cent., compared with previous year, one in Brown 15 per cent., one in Cloud 15 per cent., one in Cowley 33 $\frac{1}{3}$, one in Dickinson 20, one in Ellis 10, one in Greenwood 25, one in Harvey 5, one in Jefferson says, "wages are lower than in 1887," one in Labette reports a decrease of 25 per cent., while another in the same county advanced wages 25 per cent. One of the large mills in Leavenworth says wages have advanced 10 per cent., while a small mill in the same county reports a decrease of the same amount. One mill in Montgomery says wages are lower than in 1887. A Nemaha mill reports a decrease of 25 per cent., and one in Neosho of 20 per cent. One mill in

Ottawa county puts the decrease at 20 per cent., and another at 16. A miller in Osage county says he has been offered labor at 40 per cent. less figures than were paid during the previous year, and one in Osborne county puts the decrease at 20 per cent. Two mills in Pottawatomie report a decrease of 10 per cent. One in Pawnee says the wages of teamsters and laborers have decreased 25 cents per day. From Russell county a decrease of 10 per cent. is reported; from Smith a decrease of 20 per cent.; from Sumner a decrease of 12, and Wilson of 25 per cent. On the other hand, a mill in Edwards county reports an advance of 15 per cent.; one in McPherson an increase of from 10 to 15; one in Norton an increase of 25; one in Shawnee of 10, and in Wyandotte of 10. In general terms, it may be said that in the larger and regularly operated mills wages seem to be steady and unchanged. It is chiefly among the smaller mills that changes are reported.

REMARKS.

A Butler county miller says: "I leased my mill June 1, 1888. The mill did but little business during the year."

A Cherokee county miller writes in a more lively strain. He runs four double sets of rolls and says he has no buhrs; ground 50,000 bushels of wheat, costing him an average of 66 cents per bushel. He says: "I run my mill steadily day and night the year round, and sell all my product at home; don't have to ship anything. My wheat I buy from farmers, delivered at the mill door. I now have 10,000 bushels of wheat stored for future use."

A Coffey county miller says he only took hold of the mill in June; it had been idle previously. Another says: "On account of drouth I have done but little business."

From Davis county comes the following: "We report a very poor year on account of the scarcity of wheat and other grain. Also the fact that large roller mills can and do ship flour here, with which we with buhrs cannot compete. Our mill is a custom mill, and depends on good crops locally, and as these have failed we have done very little business."

A Ford county miller says: "No wheat in this part of the country last year."

A miller writing from Cherokee county says: "The prospects for a good crop of grain were never better in this county."

The proprietor of a small grist mill in Labette county thinks he ground 10,000 bushels of wheat and 30,000 bushels of corn during the year; says he ground exclusively for toll, ground nothing for sale.

A Lyon county miller says he did very little business during the year. Another says the same thing.

A miller in Marion county says: "We bought this mill during the year and have been rebuilding; have done no business with it as yet."

A Leavenworth miller writes: "We have done no business, but are build-

ing a first-class model roller mill of 200 bbl. capacity; expect to be running about Nov. 1."

From Montgomery county a miller says: "The mill has been undergoing repairs during the greater part of the year, and this, together with low water, has prevented us running even after the repairs were completed."

Phillips county: "These mills were under repair during the year covered by the blank, and did no business." Reno county: "Grain has been very scarce, and we have done a light business, but the prospect is good for a lively business next year." Riley county: "Poor crops and very little business." Another says: "We bought the mill last December, and have been repairing most of the time since." Smith county: "Our mill was under repairs and did no business, but we are now running, and hope to make you a good report next year." Wilson county: "This is a bulr mill, and has not run on account of having no rolls."

Neosho county: "We have done no business on account of losing our dam, and when that was repaired we could not run on account of low water."

Pottawatomie county—Olesburg: "Our mill has been shut down for over a year."

Washington county: "Mill not running."

Reno county: "Mill idle for the past year." "We have done no business to amount to anything." "The mill has not run much, has been in the hands of the heirs, but is now leased and in operation."

Ottawa county: "This mill has been idle during the past year." Another says: "Mill has been idle all the year."

A large number of similar answers to our blanks have been received. The burden of the replies is either "shut down for repairs," "no wheat in this section last year," or in the case of water mills, "lack of water."

PART 4.

MANUFACTURING INDUSTRIES.

The law creating this Bureau provided that it should collect, assort, systematize, and present in annual reports to the Governor, to be by him biennially transmitted to the Legislature, statistical details relating to all departments of labor and industrial pursuits in the State. And to enable it to perform this part of its duties it endowed the Commissioner with authority to submit a written or printed list of interrogatories to any person, company, or to the proper officer of any corporation, and require full and complete answers to be made thereto, and returned under oath; and any person to whom a written or printed list of interrogatories has been furnished by the Commissioner who shall neglect or refuse to fully answer and return shall be deemed guilty of a misdemeanor, and shall lay himself liable to a fine of \$50 or less, or to imprisonment for ninety days in the county jail, or both. The Commissioner has not yet deemed it expedient to make any attempt to enforce either of these penalties, and he is gratified to be able to state that as a rule his printed blanks forwarded by mail have been filled out and returned with as many of the questions answered as he could reasonably expect. In the case of most of the larger industrial establishments located in the State the reports have been reasonably complete; and each year shows a decided improvement in this particular over the preceding year, until it has become safe to say that these tables of manufacturing industries present a reasonably true reflex of the growth and development of enterprises of this character springing up within our borders. Some of the returned blanks, chiefly from minor establishments, fail in one or more of the details, but these do not effect the general result to any great extent. In most cases where the blanks are deficient, attention is called to the fact in a foot-note. In a very few instances estimates have been made where some minor detail was lacking, but in the main the tables have been made up just as they were received. It is not claimed that every establishment doing business in the State is represented in the following tables, but that very few of any importance are omitted, we are safe in asserting. Every effort has been made to reach all, and if we have failed in a few instances the failure is

due to a persistent neglect on the part of the managers of the institutions omitted, for we have kept an accurate record of all blanks mailed, and those responding have been checked as the replies were received, and at fixed dates duplicate blanks were mailed to delinquents, and in some instances a third and even a fourth set were forwarded. Reports have been received up to the last of December, and our tables revised so as to include these dilatory establishments.

These tables do not include railroad shops, mines, or flouring mills, but are made up from reports from private industrial establishments exclusively. In the classified industries, however, flouring mills are included, as they also are in the tables of county aggregates, thus conforming strictly to the plan adopted in all of the preceding reports, and enabling us to present a record of the growth of this class of industries from year to year. In our first report, from the returns received we estimated the capital invested in this class of industries (including flouring mills) at \$19,000,000; in our second report at \$22,000,000; in our third annual report at \$26,000,500 and the returns actually received this year show an aggregate of capital of \$34,085,535, or \$7,585,535 greater than the estimate of last year, which was based upon the assumption that the reports received represented about 90 per cent. of the whole. Accepting this 90 per cent. basis as a guide for this year, it places our private manufacturing capital at, in round numbers, \$37,500,000, against \$19,000,000 in 1885, a gain of nearly 100 per cent.

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES, BY COUNTIES, FOR THE YEAR ENDING JUNE 30, 1888.

County.	Town or city.	Industry.	No. of months in operation.....	Total capital employed.....	Value of product for the year.....	Cost of materials used.....	Amount paid for labor.....	Amount paid for interest, rent and taxes.....	Average No. of hands em- ployed.			Av. daily wages, skilled labor.			Average daily wages of unskilled labor.			No. of hours for a day's work.....
									Men.....	Women...	Youths...	Men.....	Women...	Youths...	Men.....	Women...	Youths...	
1..	Allen.....	Humholdt.....	12	\$1,500	\$1,400	\$467	\$250	.....	1	.....	1	\$2.25	.....	.....	\$1.25	.....	.....	12
2..	"	"	12	4,000	14,000	8,000	4,000	.....	12	.....	2	2.00	.....	.....	.....	.....	.....	10
3..	"	"	9	8,000	9,000	5,000	1,620	.....	12	.....	.....	2.00	.....	.....	.....	.....	.....	10
4..	"	Fola.....	12	40,000	50,000	20,000	16,000	.....	32	.....	.....	2.00	.....	.....	1.50	.....	.....	10
5..	Anderson.....	Garnett.....	12	13,000	20,000	5,000	10,000	.....	25	.....	.....	2.50	.....	.....	.....	.....	.....	10
6..	"	"	12	6,000	20,000	10,000	2,400	.....	4	.....	.....	3.00	.....	.....	1.50	.....	.....	10
7..	"	"	12	4,000	6,000	3,600	3,120	.....	5	.....	.....	3.00	.....	.....	1.50	.....	.....	10
8..	"	"	12	4,000	20,000	8,000	3,000	.....	5	.....	.....	3.00	.....	.....	1.50	.....	.....	10
9..	"	"	12	5,000	6,000	1,200	2,500	\$400	12	.....	.....	2.00	.....	.....	1.60	.....	.....	8
10..	"	"	8	600	1,200	700	400	150	1	.....	.....	2.00	.....	.....	.....	.....	.....	10
11..	"	"	6	5,000	125,000	25,000	65,000	.....	.....	500	.....	2.00	.....	.....	.....	.....	.....	.....
12..	"	"	12	10,000	15,000	4,000	4,000	300	10	.....	.....	2.00	.....	.....	.....	.....	.....	10
13..	"	"	12	5,000	15,000	7,500	4,000	.....	5	.....	.....	2.00	.....	.....	.....	.....	.....	10
14..	"	"	12	5,000	1,800	600	1,200	600	2	.....	.....	2.00	.....	.....	.....	.....	.....	10
15..	"	"	12	10,000	17,000	7,000	6,500	.....	12	.....	.....	2.00	.....	.....	.....	.....	.....	9
16..	"	"	12	5,000	8,000	4,000	2,000	.....	2	.....	.....	2.00	.....	.....	.....	.....	.....	9
17..	"	"	11	50,000	142,000	100,000	25,000	.....	16	49	.....	1.50	.....	.....	.....	.....	.....	10
18..	"	"	12	1,000	12,000	8,000	1,000	400	2	2	1	1.50	.....	.....	.....	.....	.....	10
19..	"	"	12	1,000	12,000	8,200	2,600	.....	5	.....	.....	2.50	.....	.....	1.50	.....	.....	10
20..	"	"	12	4,000	12,000	7,500	3,500	110	8	.....	.....	2.50	.....	.....	1.75	.....	.....	10
21..	"	"	12	60,000	45,000	20,000	4,500	600	9	.....	.....	2.50	.....	.....	1.50	.....	.....	10
22..	"	"	12	40,000	75,000	25,000	25,000	.....	35	.....	.....	2.50	.....	.....	1.25	.....	.....	10
23..	"	"	6	8,000	12,000	5,000	3,000	125	14	.....	.....	2.50	.....	.....	1.50	.....	65	10
24..	"	"	12	100,000	300,000	195,000	65,000	.....	150	.....	.....	2.50	.....	.....	1.50	.....	.....	10
25..	"	"	12	200,000	45,000	30,000	12,000	1,200	25	.....	.....	3.50	.....	.....	1.50	.....	.....	10
26..	"	"	12	100,000	130,000	100,000	50,000	.....	45	.....	.....	3.50	.....	.....	1.50	.....	.....	10
27..	"	"	12	1,000	8,000	3,000	900	500	3	.....	.....	1.66	.....	.....	.....	.....	.....	10
28..	"	"	12	18,000	20,000	5,000	4,000	400	15	.....	.....	2.00	.....	.....	1.25	.....	60	10
29..	"	"	12	20,000	20,000	15,000	3,800	.....	6	.....	.....	2.25	.....	.....	1.25	.....	.....	10
30..	"	"	12	20,000	50,000	15,000	20,000	.....	50	.....	.....	2.25	.....	.....	1.50	.....	.....	10
31..	"	"	12	16,000	25,500	7,000	9,000	2,000	20	5	.....	2.50	.....	.....	\$0.25	.....	.....	10
32..	"	"	12	20,000	12,000	2,000	7,000	.....	14	.....	.....	2.50	.....	.....	1.50	.....	.....	10
33..	"	"	12	5,000	10,000	3,000	2,000	.....	3	.....	.....	2.25	.....	.....	.....	.....	.....	10
34..	"	"	6	5,000	10,000	3,000	5,000	.....	8	.....	.....	3.00	.....	.....	.....	.....	.....	10
35..	"	"	6	50,000	40,000	25,000	5,000	.....	6	.....	.....	2.25	.....	.....	1.50	.....	.....	10
36..	"	"	12	25,000	25,000	6,000	12,000	6,600	7	.....	.....	4.00	.....	.....	1.50	.....	.....	10
37..	"	"	12	50,000	75,000	25,000	30,600	.....	12	.....	.....	2.50	.....	.....	1.25	.....	.....	10
38..	"	"	12	50,000	75,000	25,000	30,600	.....	53	.....	.....	2.50	.....	.....	1.00	.....	80	42

39..	Bourbon.....	Fort, Scott.....	Brick and tile.....	7	50,000	40,000	8,000	20,000	.....	80	.....	2 50	.....	1 50	.....	60	10
40..	"	"	Candles.....	12	5,000	15,000	7,000	6,000	.....	.....	.....	.....	.....	1 50	.....	.....	10
41..	"	"	Carriages.....	12	20,000	15,000	6,000	4,000	.....	6	.....	2 50	.....	1 50	.....	.....	10
42..	"	"	.....	10	20,000	60,000	28,000	10,000	.....	20	.....	2 50	.....	1 50	.....	.....	10
43..	"	"	Cement and tilling.....	12	50,000	60,000	18,300	30,000	.....	65	.....	2 00	.....	1 50	.....	.....	10
44..	"	"	.....	12	25,000	25,000	10,000	20,000	.....	17	.....	2 00	.....	.....	75	.....	9
45..	"	"	Cigars.....	12	30,000	37,834	1,000	20,000	.....	30	.....	2 00	.....	1 50	.....	.....	10
46..	"	"	Flagstone quarry.....	12	50,000	31,000	5,000	31,000	.....	1,000	.....	2 25	.....	1 50	.....	50	10
47..	"	"	Flagstone quarry.....	12	100,000	150,000	70,000	52,000	.....	107	.....	2 25	.....	1 25	.....	.....	10
48..	"	"	Foundry and machines.....	12	10,000	25,000	12,000	8,000	.....	10	.....	2 50	.....	1 25	.....	.....	10
49..	"	"	"	12	15,000	30,000	8,750	12,000	.....	20	.....	2 63	.....	1 25	.....	.....	10
50..	"	"	Furniture.....	12	100,000	30,000	10,500	12,000	.....	75	.....	2 75	.....	1 50	.....	.....	10
51..	"	"	Gas.....	12	75,000	150,000	40,000	50,000	.....	1,500	.....	2 50	.....	1 50	.....	.....	10
52..	"	"	"	12	40,000	75,000	55,000	5,000	.....	20	.....	2 50	.....	.....	.....	.....	10
53..	"	"	Harness.....	12	25,000	45,000	20,000	15,000	.....	1	.....	.....	.....	1 50	.....	.....	10
54..	"	"	"	4	15,000	12,000	8,400	1,600	.....	20	.....	2 50	.....	1 50	85	.....	10
55..	"	"	Hosiery.....	12	20,000	40,000	15,000	10,000	.....	30	.....	2 50	.....	1 50	.....	.....	10
56..	"	"	Machinery.....	12	45,000	55,000	15,000	20,000	.....	1,400	.....	2 50	.....	1 50	.....	.....	10
57..	"	"	Marble, etc.....	12	10,000	52,000	23,000	10,000	.....	25	.....	2 50	.....	1 50	.....	.....	10
58..	"	"	Planing mill.....	12	25,000	45,000	30,000	10,000	.....	20	.....	2 50	.....	1 50	.....	.....	10
59..	"	"	"	12	5,000	50,000	25,000	12,000	.....	15	.....	2 00	.....	1 25	.....	.....	10
60..	"	"	Pottery.....	12	10,000	25,000	16,000	6,000	.....	8	.....	2 00	.....	1 25	.....	.....	10
61..	"	"	"	10	3,000	7,000	1,600	3,300	.....	40	.....	8	.....	1 75	.....	1 00	10
62..	"	"	Saw mill.....	12	60,000	150,000	60,000	20,000	.....	600	.....	2 50	.....	1 25	.....	.....	10
63..	"	"	Sugar and syrup.....	12	100,000	60,000	20,000	17,000	.....	95	.....	2 50	.....	1 50	.....	.....	10
64..	"	"	Tailor, merchant.....	12	8,000	25,000	8,000	7,000	.....	8	.....	2 50	.....	1 50	.....	.....	10
65..	"	"	"	12	6,000	20,000	6,000	6,000	.....	4	.....	2 50	.....	.....	.....	.....	10
66..	"	"	Butter and cheese.....	12	6,000	2,488	830	1,680	.....	3	.....	2 50	.....	.....	.....	.....	10
67..	Brown.....	Hiatville.....	Harness.....	12	7,000	14,000	6,000	1,200	.....	600	.....	2 50	.....	1 50	.....	.....	10
68..	"	Hiawatha.....	"	12	1,500	2,190	800	400	.....	4	.....	2 25	.....	1 50	.....	.....	10
69..	Butler.....	Padonia.....	Wagonmaker.....	12	3,000	3,930	900	1,950	.....	5	.....	2 50	.....	1 25	.....	75	12
70..	"	Douglas.....	Brick.....	8	500	1,100	450	150	.....	6	.....	1	.....	1 40	.....	.....	12
71..	"	Lough.....	Sorghum.....	3	1,200	2,400	800	.....	.....	8	.....	.....	.....	1 75	.....	.....	10
72..	Chase.....	Clements.....	Stone saw mill.....	9	30,000	50,000	8,000	32,000	.....	60	.....	4 50	.....	1 75	.....	.....	10
73..	Chautauqua.....	Newport.....	Cotton gin.....	1	1,300	400	50	200	.....	.....	.....	.....	.....	1 75	.....	.....	10
74..	"	"	"	1	250	400	75	175	.....	.....	.....	.....	.....	1 75	.....	.....	10
75..	"	Peru.....	Harness.....	12	2,000	1,000	500	100	.....	1	.....	2 00	.....	1 00	75	.....	10
76..	Cherokee.....	Baxter Springs.....	Frut evaporator.....	3	6,000	10,250	3,000	480	.....	12	.....	2 00	.....	.....	.....	.....	10
77..	"	Columbus.....	Brooms.....	12	125	830	250	480	.....	1	.....	1 50	.....	.....	.....	.....	10
78..	"	"	Marble.....	12	2,000	3,000	1,125	500	.....	36	.....	2 50	.....	1 50	.....	.....	9
79..	"	Empire City.....	Crusher, lead and zinc.....	6	8,000	80,640	51,360	17,240	.....	13	.....	2 25	.....	1 50	.....	.....	9
80..	"	"	"	7	10,000	66,000	40,560	7,680	.....	100	.....	2 25	.....	1 50	.....	.....	9
81..	"	Galena.....	"	6	4,000	14,007	150	1,500	.....	19	.....	2 25	.....	1 75	.....	.....	9
82..	"	"	"	7	15,000	47,000	30,000	10,320	.....	20	.....	2 25	.....	1 75	.....	.....	9
83..	"	"	"	7	10,000	32,000	20,000	4,900	.....	350	.....	2 00	.....	1 75	.....	.....	9
84..	"	"	"	6	10,000	20,000	14,000	2,000	.....	9	.....	2 00	.....	1 75	.....	.....	9
85..	"	"	"	12	12,000	60,000	32,000	25,000	.....	22	.....	2 00	.....	1 50	.....	.....	10
86..	"	"	Zinc mining.....	5	550	20,000	14,000	2,500	.....	6	.....	1 75	.....	1 25	.....	.....	9
87..	"	Lowell.....	Hosiery.....	12	1,000	3,000	1,500	1,200	.....	1	.....	2 00	.....	1 50	.....	.....	12
88..	"	Weir City.....	Smelter.....	12	75,000	220,000	150,000	65,000	.....	125	.....	2 00	.....	1 50	.....	.....	10
89..	Clay.....	"	Foundry and machines.....	9	9,000	7,000	4,000	1,200	.....	3	.....	2 00	.....	1 50	.....	.....	10
90..	"	"	Vinegar, etc.....	9	1,485	2,000	343	800	.....	2	.....	.....	.....	1 50	.....	.....	10

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES, BY COUNTIES — CONTINUED.

No. of return.....	County.	Town or city.	Industry.	No. of months in operation.....	Total capital employed.....	Value of product for the year.....	Cost of materials used.....	Amount paid for labor.....	Amount paid for interest, rent and taxes.....	Average No. of hands employed.			Ave. daily wages, skilled labor.			Average daily wages of unskilled labor.			No. of hours for a day's work.....
										Men.....	Women...	Youths...	Men.....	Women...	Youths...	Men.....	Women...	Youths...	
91.	Cloud.....	Clyde.....	Carriages, etc.....	12	\$20,000	\$19,000	\$10,000	\$5,000		12			\$2 25			\$1 50			10
92.	"	Concordia.....	Foundry and machine.....	12	12,000	8,000	2,000	5,000		10			3 00			\$1 00			10
93.	"	"	Soda water.....	6	15,000	2,400	1,250	5,325		2			1 50			1 00			10
94.	"	"	Wagons, etc.....	12	3,000	4,000	2,000	1,000		2			2 00			1 25			10
95.	Colfax.....	Burlington.....	Carriage.....	4	4,000	4,000	1,500	1,300		8			2 25			2 00			10
96.	"	"	Cigars.....	12	1,200	7,500	1,500	3,700		7			2 00			1 75			9
97.	"	"	Filing.....	6	1,600	1,000	200	500		2			2 00			2 00			10
98.	"	Leroy.....	Washing machines.....	12	400	3,000	1,000	1,000		3			2 00			2 25			10
99.	"	Waverly.....	Carriages, etc.....	12	3,000	18,000	6,000	3,500		6			2 00			2 00			10
100.	"	Arkansas City.....	Cigars.....	12	500	5,000	3,000	1,000		2			2 00			2 00			10
101.	"	"	"	12	2,500	7,500	1,500	2,000		4			2 00			2 00			9
102.	"	"	"	12	1,000	6,300	1,200	1,500		4			2 25			1 50			10
103.	"	"	Crackers and candy.....	12	50,000	90,000	54,000	19,580		23	16	4	2 50			\$0 42			10
104.	"	"	Foundry and machine.....	12	15,000	12,000	5,400	3,600	\$80	6	2	2	2 00			1 50			10
105.	"	"	Mattresses.....	12	10,000	60,000	40,000	10,000		15	2		2 00			1 50			10
106.	"	"	Mattresses and springs.....	2	10,000	70,000	50,000	7,500		30			2 25			1 50			10
107.	"	"	Planing.....	3	7,000	3,000	* 1,000	* 1,105	380	8			2 25			1 50			10
108.	"	"	"	12	7,500	13,000	4,450	5,000		10			2 25			1 00			10
109.	"	Burdon.....	Stone quarry.....	2	200	200	50	50	5	2			1 50			1 00			10
110.	"	Winfield.....	Cigars.....	6	375	2,000	700	500		3			2 00			1 25			12
111.	"	Beulah.....	Butter.....	3	2,800	1,500	1,300	180		1			2 25			1 25			10
112.	"	Cherokee.....	Hay press.....	10	15,000	20,000	9,000	4,500	400	9			2 25			1 25			12
113.	"	Hepler.....	Creamery.....	1	4,000								2 00			1 50			10
114.	"	Pittsburg.....	Brick.....	6	2,000	5,000	550	2,000		10			2 00			1 30			10
115.	"	"	Shelter.....	12	50,000	240,000	165,000	60,000	1,000	89	3		2 00			1 40			9½
116.	"	"	"	12	75,000	130,838	86,492	29,366	350	50			2 00			1 35			9½
117.	"	"	"	12	50,000	127,500	76,700	30,000		58			2 00			1 40			9½
118.	"	"	"	12	100,000	214,625	138,430	50,225		100	5		2 00			1 50			10
119.	"	"	Wood turning, etc.....	12	2,100	7,000	200	700	21	1			2 25			1 50			9
120.	"	"	Cigars.....	12	3,000	12,000	2,400	2,400		3			2 00			2 50			10
121.	"	Junction City.....	Electric light.....	12	20,000	12,000	5,000	3,600		6			2 00			2 00			10
122.	"	"	Foundry and machine.....	9	4,000	10,000	3,500	3,000		8			2 00			2 25			10
123.	"	"	Harness.....	12	15,000	15,000	9,500	2,880		4			2 00			2 00			10
124.	"	"	"	12	5,000	3,000	5,000	1,000		3			2 25			2 00			10
125.	"	"	Planing mill.....	12	8,000	10,110	5,500	2,800	450	5			2 00			2 00			10
126.	"	"	Soda water, etc.....	3½	1,600	1,050	300	600	200	6			2 00			2 00			10
127.	"	"	Wagons, etc.....	11	6,000	12,000	1,500	5,000		6			2 00			2 00			10
128.	"	"	"	11	2,000	5,000	1,350	4,000		5			2 00			2 00			10

129. Davis.....	Moss Springs.....	2	3,000	1,200	400	400	2	2	4	1 25	75	1 75	50	12
130. Wreford.....	White line.....	6	4,000	2,607	500	2,000	5	5	.....	.....	.....	1 75	.....	10
131. Deatur.....	Brick.....	4	1,000	4,000	500	2,000	.....	.....	.....	.....	.....	1 75	.....	10
132. Oberlin.....	Carriages.....	12	60,000	100,000	40,000	50,000	85	1	.....	2 50	.....	1 25	.....	10
133. Abilene.....	Cigars.....	12	600	4,000	2,000	1,400	3	.....	2 00	.....	.....	1 50	.....	10
134. ".....	Planing mill.....	10	12,000	40,000	26,000	9,000	14	1	2 25	2 50	.....	1 50	.....	10
135. ".....	Pottery.....	9	4,000	1,400	300	500	5	.....	2 50	2 00	.....	1 50	.....	10
136. Belle Springs.....	Cremery.....	12	6,000	20,000	14,400	3,000	5	.....	2 50	2 00	.....	1 50	.....	12
137. ".....	Cooperage.....	12	1,000	2,600	1,200	1,000	3	.....	2 50	2 00	.....	1 50	.....	10
138. Enterprise.....	Machinery.....	12	30,000	50,000	27,000	13,964	26	4	2 50	2 50	.....	1 65	.....	10
139. Hope.....	Butter and cheese.....	12	2,000	12,000	7,000	1,390	3	.....	2 00	.....	.....	1 00	.....	12
140. ".....	Plaster.....	8	10,000	12,000	3,000	3,500	12	.....	2 00	.....	.....	1 25	.....	10
141. Wathena.....	Overalls.....	11	2,500	50,000	35,000	12,000	3	37	2 50	1 00	.....	1 00	.....	10
142. Doniphan.....	Saw mill.....	12	700	1,200	300	800	4	.....	1 50	.....	.....	1 25	.....	10
143. Douglas.....	Baking powder.....	12	90,000	25,000	10,000	8,500	10	5	2 50	80	.....	1 30	50	10
144. ".....	Bark re.....	11	120,000	300,000	240,000	15,000	25	.....	2 50	.....	.....	1 50	.....	10
145. ".....	Book bindery.....	12	48,000	35,000	22,000	7,750	7	4	2 25	1 25	.....	1 25	60	40
146. ".....	Brooms.....	12	500	900	600	300	.....	.....	.....	.....	.....	1 50	.....	10
147. ".....	Canning factory.....	12	34,100	52,000	18,954	8,739	125	250	2 50	2 50	.....	1 50	75	50
148. ".....	Clothing.....	6	25,000	40,000	22,000	14,000	10	40	1 75	1 00	.....	1 50	75	10
149. ".....	Foundry.....	12	20,000	12,000	4,000	6,000	12	.....	2 25	.....	.....	1 00	.....	10
150. ".....	Medicines.....	12	50,000	18,000	7,000	500	6	.....	.....	.....	.....	1 00	.....	10
151. ".....	Paper mill.....	6	50,000	22,500	11,000	6,000	26	4	2 50	2 50	.....	1 25	.....	10
152. ".....	Vinegar, etc.....	12	15,000	5,000	1,000	2,500	500	4	1	2 50	.....	1 50	50	10
153. ".....	Brooms.....	6	200	575	321	300	1	.....	.....	.....	.....	1 50	.....	10
154. Edwards.....	Brick.....	8	7,500	10,500	1,500	6,000	20	.....	2 25	2 25	.....	1 50	.....	10
155. ".....	".....	7	1,000	6,000	800	1,700	16	.....	2 25	2 50	.....	1 50	.....	10
156. ".....	Tin.....	12	3,500	4,500	3,000	1,000	2	.....	2 50	.....	.....	1 50	.....	10
157. Ellsworth.....	Contractor.....	12	3,500	30,000	20,000	4,000	8	.....	2 50	.....	.....	1 50	.....	10
158. Ford.....	Brick and ice.....	7	4,000	5,400	2,400	2,000	15	2	2 00	.....	.....	1 50	75	10
159. Dodge City.....	Electric light.....	11	30,000	6,000	3,000	2,500	4	.....	2 00	2 00	.....	1 35	.....	11
160. Ottawa.....	Furniture.....	10	30,000	20,000	5,000	9,000	18	.....	2 00	2 00	.....	1 50	.....	10
161. Franklin.....	Brick.....	7	3,500	1,500	300	970	8	.....	2 00	2 00	.....	1 50	.....	10
162. Harper.....	Cigars.....	12	1,000	3,600	800	1,200	3	.....	2 00	.....	.....	1 50	.....	9
163. ".....	Printing.....	12	5,000	3,500	720	1,500	4	.....	2 25	.....	.....	1 50	.....	10
164. ".....	Soda water.....	8	4,000	6,000	2,000	1,000	3	.....	2 25	.....	.....	1 50	.....	10
165. Harvey.....	Brooms.....	12	3,500	6,065	1,885	1,400	4	.....	.....	.....	.....	1 50	.....	10
166. ".....	Cigars.....	12	300	900	300	500	1	.....	2 00	.....	.....	1 50	.....	10
167. ".....	Cremery.....	12	6,000	20,000	12,500	1,080	4	2	2 00	.....	.....	1 50	.....	10
168. ".....	Brick.....	7	2,500	4,000	2,500	2,400	9	.....	2 00	.....	.....	1 50	.....	10
169. ".....	".....	6	2,500	7,000	1,000	3,600	17	.....	2 00	.....	.....	1 50	.....	10
170. ".....	Brooms.....	12	1,500	5,000	2,500	1,800	4	.....	2 00	2 00	.....	1 50	.....	10
171. ".....	Carriages.....	12	50,000	75,000	39,000	21,500	43	.....	2 00	2 00	.....	75	.....	10
172. ".....	".....	12	6,000	10,000	5,000	2,000	5	.....	2 50	2 50	.....	1 50	35	10
173. ".....	Cigars.....	12	1,500	6,650	2,730	3,032	2	1	2 30	.....	.....	1 50	.....	10
174. ".....	Cornice.....	8	7,000	12,000	4,000	3,000	7	.....	2 50	2 50	.....	1 50	.....	10
175. ".....	Marble.....	12	6,000	10,000	3,000	4,000	5	.....	2 50	.....	.....	1 75	.....	10
176. ".....	Planing mill.....	9	12,000	35,000	20,000	10,000	17	1	2 50	.....	.....	1 75	.....	10
177. ".....	Soap.....	12	4,000	3,500	1,200	1,500	3	.....	2 50	.....	.....	1 50	.....	10
178. ".....	Wire fence.....	6	7,000	4,000	1,050	500	2	.....	1	75	.....	1	.....	10

*Three months. †Just started.

217.	Leavenworth...	Foundry and machine	250,000	300,000	125,000	125,000	175	2 50	1 50	10
218.	"	"	6,000	11,000	2,900	5,500	14	2 50	1 50	10
219.	"	Furnace factory...	11,000	20,338	14,490	4,107	269	2 50	1 50	10
220.	"	"	50,000	88,000	35,000	31,000	63	15	1 25	50
221.	"	"	20,000	25,000	10,000	8,000	16	2 00	1 35	10
222.	"	"	15,000	24,000	10,000	7,000	26	2 00	1 35	10
223.	"	"	15,000	15,000	7,000	4,000	8	2	1 25	10
224.	"	Fruit canning	60,000	65,000	25,000	20,000	15	2 25	75	50
225.	"	Gas Light Co.	100,000	40,000	20,000	14,000	8	1 95	1 90	10
226.	"	Glucose factory	1,322,500	628,525	490,666	43,087	100	2 75	1 50	10
227.	"	Harness	5,000	10,000	7,500	2,500	6	1 50	1 50	10
228.	"	"	7,000	60,000	50,000	5,500	10	2 50	1 75	10
229.	"	Iron bridge, etc.	100,000	300,000	200,000	50,000	100	2 50	1 25	10
230.	"	Marble works.	5,000	5,000	2,000	2,000	4	2 50	1 50	10
231.	"	"	12,500	16,000	5,000	6,000	10	2 50	1 50	10
232.	"	Matresses	1,000	4,500	3,000	1,700	4	1	80	10
233.	"	Medicine	60,000	65,000	25,000	18,000	13	1 50	1 50	10
234.	"	Nickel plating	5,000	10,000	1,000	5,000	10	2 50	1 50	10
235.	"	Planing mill	45,000	25,000	12,000	6,000	15	2 00	1 50	10
236.	"	"	90,000	75,000	40,000	22,000	40	1 3	1 50	10
237.	"	Printing and engraving	30,000	45,000	20,000	15,000	26	2 00	1 50	10
238.	"	Shirts	400	2,000	1,000	1,000	1	6	1 50	10
239.	"	Soap factory	8,000	14,000	9,730	2,400	380	1 90	1 00	10
240.	"	"	10,000	25,000	13,000	4,000	4	2 00	1 00	10
241.	"	Stone works.	10,000	9,700	4,000	4,900	3	4 50	1 50	10
242.	"	Stone works.	100,000	65,000	25,000	20,000	7	5	1 25	10
243.	"	"	300,000	300,000	110,000	109,000	45	25	1 25	75
244.	"	Tailor, merchant	900	8,000	550	550	175	3 00	1 00	60
245.	"	"	3,000	12,000	5,000	3,000	6	2 00	1 00	10
246.	"	"	3,000	15,000	5,000	4,000	8	2 00	1 00	10
247.	"	"	20,000	100,000	50,000	15,000	10	5	1 00	50
248.	"	"	7,000	30,000	10,000	7,500	10	2 50	1 50	10
249.	"	"	7,000	30,000	15,000	8,000	14	2 50	1 50	10
250.	"	"	3,000	5,000	3,000	600	2	2 00	1 00	10
251.	"	Tin roofing	20,000	20,000	10,000	6,000	8	2 50	1 50	10
252.	"	Tonic and mineral waters	100,000	50,000	10,000	30,000	25	3	1 65	10
253.	"	Trunks	2,500	4,500	6,500	2,300	4	2 00	1 50	10
254.	"	Vinegar works	25,000	30,000	18,000	6,500	15	2 00	1 50	10
255.	"	Wagon factory	300,000	156,454	81,626	69,316	90	2 75	1 60	10
256.	"	Water works	325,000	50,000	10,000	12,000	9	5 33	1 62	10
257.	"	Butter and cheese	8,000	3,000	1,200	750	3	2 50	1 25	10
258.	"	Harness	1,000	2,000	1,000	200	2	1 75	1 00	10
259.	"	"	1,000	3,000	600	325	3	2 00	1 25	10
260.	"	Turning wood	2,000	3,400	1,050	800	5	2 00	1 25	10
261.	"	Sorghum	200	750	300	175	2	2 00	1 25	12
262.	"	Bakery	1,500	4,000	3,000	800	2	1 50	1 25	12
263.	"	"	3,000	9,000	6,000	900	2	1 40	1 25	12
264.	"	Binder	2,000	3,000	1,500	1,500	4	2 50	1 50	10
265.	"	Books and shoes	1,500	3,000	800	1,600	3	1 75	1 00	10
266.	"	"	4,000	1,500	500	800	2	2 00	1 00	10
267.	"	Carriages	1,000	2,000	700	600	1	2 00	1 00	10
268.	"	"	5,000	8,000	2,500	2,500	6	2 00	1 00	10

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES—CONTINUED.

No. of return.....	County.	Town or city.	Industry.	No. of months in operation.....	Total capital employed.....	Value of product for the year.....	Cost of materials used.....	Amount paid for labor.....	Amount paid for interest, rent and taxes.....	Average No. of hands employed.			Ar. daily wages, skilled labor.			Average daily wages of unskilled labor.			No. of hours for a day's work.....
										Men.....	Women..	Youths...	Men.....	Women..	Youths...	Men.....	Women..	Youths...	
269.	Iron.....	Euporia.....	Carriages.....	12	\$4,000	\$1,400	\$800	\$500		4			\$2.00						10
270.	"	"	Cigars.....	12	3,000	5,250	3,250	2,000	\$500	4			2.00						8
271.	"	"	"	12	4,500	2,500	2,000	900		4		1	2.00			\$1.00			9
272.	"	"	"	12	2,500	5,600	2,000	1,600		3			2.00						9
273.	"	"	Clothing.....	12	5,000	20,000	7,000	9,000		10	3								
274.	"	"	"	12	3,000	26,000	8,000	8,000		12									
275.	"	"	"	12	3,000	3,000	3,000	1,200		2									
276.	"	"	"	12	4,000	30,000	15,000	12,500		6	80								
277.	"	"	Foundry.....	12	4,000	15,000	5,000	5,500		10			2.50			\$1.50			10
278.	"	"	Furniture.....	10	15,000	10,000	5,000	2,575		5			2.25			1.30			10
279.	"	"	Harness.....	12	11,000	10,000	4,000	1,600		4			2.00						10
280.	"	"	"	12	2,300	4,000	2,000	1,500		4			2.00						10
281.	"	"	"	12	1,500	1,800	1,200	800		2			2.00						10
282.	"	"	Marble.....	12	5,000	4,000	1,200	1,500		3			2.50						10
283.	"	"	"	12	3,000	2,500	1,000	900		1			2.00						10
284.	"	"	"	12	1,000	3,000	1,000	1,000		2			2.50						10
285.	"	"	Sorghum.....	2	1,500	900	275	300		6						1.50			12
286.	"	"	Tin and hardware.	12	50,000	2,000	700	900		8			2.75			2.00			10
287.	"	"	"	12	12,000	2,500	1,800	2,100		3			2.75						10
288.	"	"	Tin.....	12	1,000	7,000	4,000	2,400		3			2.75						10
289.	Marion.....	Marion.....	Foundry.....	9	40,000	7,761	4,000	6,597		24			2.16			1.00			10
290.	"	Peabody.....	Creamery.....	9	5,000	36,000	25,000	500		9			4.00			1.38			10
291.	"	"	Wind mills.....	9	2,000	13,700	12,000	5,000		10			2.50			1.30			12
292.	Marshall.....	Bigelow.....	Stone quarry.....	9	5,000	40,000	1,000	4,500		20			1.50			1.25			10
293.	"	Beattie.....	"	10	5,000	7,000	1,000	36,000		45			2.25			1.50			10
294.	"	Blue Rapids.....	Foundry.....	12	15,000	30,000	6,900	9,000		15			2.25			1.50			10
295.	"	Irving.....	Brooms.....	10	600	4,375	1,250	2,000		5			2.00			1.00			10
296.	"	Marysville.....	Carriages.....	12	2,000	2,000	1,000	800		4			2.00			1.00			10
297.	"	"	"	12	3,000	1,550	1,125	400		4			2.00						10
298.	"	"	Cigars.....	12	10,000	20,000	22,000	5,000		11	1		3.25			1.50			10
299.	"	"	"	12	12,300	73,700	22,000	18,705	1,020	20	10		3.25						10
300.	"	"	Foundry and machine.....	12	6,000	6,700	3,400	2,000		7			2.50						10
301.	"	"	Soda water, etc.....	8	6,000	7,001	4,720	2,000		3		2	2.50			1.25		75	10
302.	McPherson.....	"	Butter and cheese.....	3	7,300	4,000	2,160	301		4						1.50			12
303.	"	Marquette.....	Creamery.....	5	7,200	2,500	1,200	401		2						1.50			12
304.	"	"	Brick.....	6	3,200	7,500	1,000	3,000		18		1				1.50			10
305.	"	McPherson.....	"	7	3,000	7,500	1,200	3,000		16		1				1.50			10
306.	Miami.....	Louisburg.....	Carriages.....	12	10,000	9,900	5,175	2,500		6			2.25						10

307.	Miami	Puola	Brick	8	600	5,000	650	3,000	8	2	2 00	1 50	10
308.	"	"	Brick and drain tile.	5	1,000	4,000	830	2,200	11	2	2 00	1 50	10
309.	"	"	Carriages	11	10,000	10,000	3,000	1,000	300	4	2 00	1 50	10
310.	"	"	"	10	3,000	4,000	1,000	2,000	6	2	2 00	1 50	10
311.	Mitchell	Asherville	Brooms	12	10,500	1,147	427	456	2	1	1 50	1 50	10
312.	"	Helford	Foundry	12	3,500	9,000	3,500	2,500	5	2	2 25	1 50	10
313.	"	"	Harness	12	3,500	2,200	1,000	650	121	2	2 00	1 50	10
314.	Montgomery	Cherryvale	Cigars	12	1,800	8,000	6,728	3,100	9	5	2 00	1 50	9
315.	"	"	Soda water.	6	1,000	4,300	2,060	408	4	2	2 00	1 50	10
316.	"	"	Water works.	12	80,000	15,000	6,000	4,337	5	1	2 00	1 25	10
317.	"	Coffeyville.	Brooms	10	100	1,200	400	600	3	3	2 00	1 50	10
318.	"	Independence.	Carriages	12	1,000	1,500	400	316	3	1	2 00	1 20	10
319.	"	"	Matresses.	12	1,000	3,000	150	1,500	3	3	2 00	1 50	10
320.	Morris	Council Grove.	Brick	7	2,000	6,000	4,000	1,800	6	1	2 00	1 50	10
321.	"	"	Brick	6	2,200	6,200	4,000	1,700	6	2	2 00	1 50	10
322.	"	"	Broom	12	300	2,000	800	700	2	2	2 50	1 50	10
323.	"	"	Creamery	8	7,000	4,672	3,867	760	251	2	2 50	1 00	10
324.	"	"	Foundry and machine.	12	5,000	7,000	3,000	3,000	7	2	2 50	1 50	10
325.	"	"	Line.	8	1,000	9,000	5,000	2,500	7	2	2 00	1 50	10
326.	"	"	Soda water.	8	1,200	2,500	1,000	700	2	2	2 00	1 50	10
327.	Nemaha	Centralia	Harrows.	2	3,000	5,000	1,900	500	8	1	2 00	1 50	10
328.	"	Sabetha	Wagons.	12	1,600	1,800	400	700	8	1	2 25	1 25	10
329.	"	Seneca	Calf weaners.	10	1,500	2,945	869	900	130	3	2 25	1 25	9
330.	"	"	Cigars	12	600	1,500	800	500	200	1	1 50	1 25	9
331.	"	"	Creamery	7	11,000	18,000	11,000	3,400	11	1	2 50	1 50	10
332.	"	"	Egg house, etc.	12	8,000	50,000	44,000	1,100	75	3	2 50	1 50	10
333.	Neosho	"	Saw mill	12	2,000	6,000	3,000	1,500	6	2	2 15	1 50	10
334.	"	Osage Mission.	Carriages.	12	3,000	1,200	300	800	70	4	2 15	1 00	10
335.	"	"	Machine	12	70	1,000	200	600	71	1	2 25	1 00	10
336.	"	"	Stone mill.	6	3,000	2,500	1,000	900	3	3	2 00	1 25	10
337.	Osage	Burlingame	Brick and tile.	6	2,000	1,000	100	700	10	4	2 00	1 50	10
338.	"	"	Brick	5	400	500	80	300	2	2	2 00	1 50	10
339.	"	Lyndon	Brooms	12	500	2,700	780	1,400	3	3	2 00	1 50	10
340.	"	"	"	12	300	2,400	600	800	2	2	2 00	1 50	10
341.	"	"	Overalls.	3	700	400	250	150	3	3	\$0.75	1 50	10
342.	"	Quenemo	Brick	4	1,000	2,100	50	1,200	8	2	2 50	1 50	10
343.	Ottawa	Minneapolis	Builder	12	1,500	10,000	6,700	2,500	175	5	2 50	1 50	10
344.	"	"	Foundry and machine.	12	6,000	3,000	1,000	2,000	3	3	2 50	1 50	10
345.	"	"	Pork packing.	5	5,000	10,000	7,000	2,000	250	4	2 00	1 50	9
346.	"	"	Sorghum.	1 1/2	500	650	40	125	80	4	2 00	1 00	12
347.	"	Vine Creek	Butter and cheese	4	7,000	1,020	200	720	2	2	2 00	1 00	12
348.	Pawnee.	Larned	Foundry—wind mills.	11	3,000	2,600	1,800	400	6	2	2 25	1 25	12
349.	"	"	Harness	12	1,000	2,700	1,000	1,200	2	2	2 00	1 25	10
350.	"	"	Planing mill.	12	10,000	40,000	15,000	6,000	15	2	2 00	1 50	10
351.	"	"	Pottery	12	5,000	4,000	500	3,000	6	2	2 00	1 50	10
352.	Phillips.	"	Creamery	10	1,500	2,500	600	1,700	4	4	2 25	1 50	12
353.	"	Kirwin	Marble	9	1,000	7,000	3,000	3,308	8	2	2 25	1 50	10
354.	Pottawatomie.	Havensville	Creamery	7	6,000	900	800	200	2	2	2 00	1 50	12
355.	"	Onaga	Brick and lime	2	1,500	950	450	300	4	4	2 00	1 50	10
356.	"	"	Creamery	10	7,000	8,097	5,428	1,072	2	2	2 00	1 50	12
357.	Rawlins.	Atwood	Cigars	12	2,200	1,500	700	400	2	2	2 00	1 50	9
358.	"	Ilion	Sorghum.	2	500	1,800	400	150	3	1	2 00	1 50	12

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES—CONTINUED.

County.	Town or city.	Industry.	No. of months in operation.....	Total capital employed.....	Value of product for the year.....	Cost of materials used.....	Amount paid for labor.....	Amount paid for interest, rent, and taxes.....	Average No. of hands employed.			Av. daily wages, skilled labor.			Average daily wages of unskilled labor.			No. of hours for a day's work.....
									Men.....	Women.....	Youths...	Men.....	Women.....	Youths...	Men.....	Women.....	Youths...	
359.	Reno.....	Hutchinson.....	8	\$1,200	\$3,000	\$900	\$1,200		3			\$2 75			\$1 50			10
360.	"	"	11	*50,000	5,000				25			3 50			1 50			12
361.	"	"	2	*30,000					50			3 00			1 50			10
362.	"	"	12	*100,000	2,500	1,500	840		2			2 00						12
363.	"	Bakery.....	12	1,200	2,500	1,500			3						1 50			10
364.	"	Confectionery.....	12	1,000	2,250	720	840		3			2 00			1 50			10
365.	Riley.....	Cement.....	12	65,000	18,700	11,500	6,700		12			3 50			1 50			10
366.	"	Stone.....	10	20,000	50,000	5,000	35,000		60			2 50			1 50			10
367.	"	"	12	1,000	1,500	80	300		1			2 50			1 50			9
368.	Rooks.....	Blacksmith.....	6	4,000	8,190	1,625	2,895	275	24			2 50			1 50			9
369.	Stockton.....	Brick.....	10½	8,100	20,920	15,000	2,060		3			2 50			1 50			10
370.	Saline.....	Butter and cheese.....	12	10,000	16,000	3,600	4,800		10	3		2 50	\$1 25		1 50			10
371.	"	Blank books.....	12	3,000	7,000	1,500	2,000		6	2		2 50	1 00		1 50			10
372.	"	"	5	5,500	7,500	500	4,500		21			2 50			1 50			10
373.	"	Brick.....	5	10,000	15,000	1,500	9,000		40			2 50			1 50			10
374.	"	"	5	5,000	7,000	500	4,000		20			2 50			1 50			10
375.	"	Carriages.....	12	25,000	40,000	27,000	7,800		10			2 50						10
376.	"	"	12	1,200	5,000	2,500	1,500		5			2 50						10
377.	"	Cornice.....	12	1,500	5,000	2,000	2,000		5			2 50						10
378.	"	Cornice and sheet-iron.....	12	1,500	5,000	2,500	1,500		8			2 50						10
379.	"	"	12	2,500	6,000	2,000	3,600		8			2 50						10
380.	"	Foundry.....	12	1,000	2,000	500	1,500		10	2		2 50						10
381.	"	Matresses.....	6	1,000	2,000	1,000	4,100		18	1		1 75			1 35			10
382.	"	Planing mill.....	12	10,000	30,000	10,000	9,000		3			2 25			1 50			10
383.	"	Salt.....	10	50,000					35			2 00			1 25			10
384.	Solomon City.....	Brick.....	6	12,000	18,000	6,500	20,000		10			2 50			1 50			10
385.	Colwick.....	Bottling works.....	12	10,000	15,000	6,500	4,000		10			2 25			1 50			10
386.	"	"	9	25,000	36,000	10,000	18,800		25			3 00			1 75	\$0 50		9
387.	"	Brick and contractors.....	12	50,000	125,000	10,000	94,857		150			3 00			1 50			10
388.	"	Brooms.....	12	200	1,920	400	900		2						1 50			10
389.	"	Car factory.....	12	2,000,000	3,840,000	3,000,000	120,000		300	1	3							8
390.	"	Carriage.....	12	25,000	80,000	50,000	19,500		25			2 00						8
391.	"	Cigars.....	12	2,000	12,000	7,500	3,000		5			2 00	1 00					8
392.	"	"	12	6,000	20,000	5,000	10,000		18	1		2 00						8
393.	"	"	12	1,500	12,000	5,600	6,500		10			2 00						8
394.	"	"	12	6,000	36,000	8,400	7,800		15			2 00						8
395.	"	"	12	1,500	5,000	1,500	1,800		3			2 00						8
396.	"	Coffee and spice.....	12	30,000	135,000	100,000	10,000	1,200	12	5		4 00			1 50			9

	Sedgewick...	Wichita		Confectionery.....	12	8,000	60,000	50,000	2,880		6	3	2 60	1 00	1 50		10
397..				Confectionery.....	12	8,000	80,000	60,000	13,000		35		2 50		1 50		10
398..	“	“	“	Coritice and roofing.....	12	13,000	70,000	60,000	12,000		25		2 50		1 50		10
399..	“	“	“	“	12	1,500	20,000	9,000	5,460		7		2 50		1 50		10
400..	“	“	“	(rackers and candies.....	12	100,000	150,000	69,700	20,000		25	20	2 00	1 00			10
401..	“	“	“	Electric light.....	12	50,000	20,000	7,128	5,489	1,901	7		3 41		1 60		6
402..	“	“	“	Electric light and gas.....	12	150,000	40,000	15,000	15,000	2,100	30		6 00		1 75		10
403..	“	“	“	Foundry and machine.....	12	57,000	148,000	80,000	18,000	386	40		2 25		1 65		10
404..	“	“	“	Foundry.....	12	20,000	100,000	54,000	20,800	1,600	37	13	2 75		1 65		10
405..	“	“	“	Foundry and boiler.....	12	15,000	12,000	5,000	5,000		10		2 50		1 60		10
406..	“	“	“	Fruit extracts.....	12	20,000	33,500	16,950	5,200		6	2	2 00	1 00		75	10
407..	“	“	“	Harness.....	12	35,000	85,000	40,000	11,000		18		2 25				10
408..	“	“	“	“	12	1,800	3,000	1,000	3,000		2		2 00				10
409..	“	“	“	“	12	7,500	18,000	10,000	2,500		4		2 00				10
410..	“	“	“	Ice.....	12	6,000	15,000	12,000	2,500		4		2 00				10
411..	“	“	“	“	12	65,000	30,000	7,165	15,000		35		2 50		1 75		10
412..	“	“	“	Leather and shoe find'gs	7	10,000	54,000	30,000	4,200		10		2 00		1 60		10
413..	“	“	“	Marble and granite.....	12	5,000	18,000	6,000	2,500		6		2 50				10
414..	“	“	“	“	12	8,000	25,000	8,000	3,000		8		2 50				10
415..	“	“	“	Novelty works.....	12	1,500	2,700	1,000	800	221	2		2 00				10
416..	“	“	“	Paper box.....	12	1,200	4,000	2,100	1,200		2	6	2 00		1 50		10
417..	“	“	“	Planing mill.....	12	60,000	72,000	20,000	18,000	140	30		2 50		1 50		10
418..	“	“	“	Planing mill, sash, &c.....	12	60,000	125,000	90,000	10,000		20		2 50		1 35		10
419..	“	“	“	“	12	3,000	100,000	50,000	37,300		35		2 50		1 50		10
420..	“	“	“	“	12	35,000	200,000	130,000	33,800		55		2 50		1 50		10
421..	“	“	“	“	12	25,000	15,000	5,700	5,000		8		2 00		1 50		10
422..	“	“	“	“	12	10,000	27,000	10,000	9,000		10		2 50		1 50		10
423..	“	“	“	“	12	10,000	150,000	100,000	20,000		25		2 50		1 50		10
424..	“	“	“	Printing and blank bks.....	12	80,000	125,000	50,000	26,000		55	10	15	3 00	80	50 40	30
425..	“	“	“	Printing, job.....	6	25,000	40,000	6,250	18,000		36	1	20	2 75	80	40	10
426..	“	“	“	“	12	30,000	75,000	15,000	5,000		14	1	3	1 00		50	10
427..	“	“	“	“ publishing.....	12	50,000	28,750	33,696	5,000		54	5	2 75	1 00			10
428..	“	“	“	“ job.....	12	2,500	280	1,200	1,200		3		2 00				10
429..	“	“	“	“ job.....	12	2,700	4,000	400	2,080		5		2 25				10
430..	“	“	“	Soap.....	12	60,000	55,000	20,600	6,000		9		2 00				10
431..	“	“	“	Soda water, &c.....	12	3,000	4,000	1,222	2,160		3		2 50		1 50		10
432..	“	“	“	Spring beds.....	12	6,000	25,000	14,000	3,500		9		2 00		1 50		10
433..	“	“	“	Ten's and awnings.....	12	2,000	8,000	6,000	3,000		2	3	2 25	80			10
434..	“	“	“	Tuner.....	7	350	2,500	1,400	900		2		2 50				10
435..	“	“	“	“	12	400	1,000	548	720		2		2 50				10
436..	“	“	“	Trunks.....	12	7,000	14,000	6,000	5,750		10		2 00				10
437..	“	“	“	Vinegar.....	12	20,000	40,000	20,000	5,000	1,000	10		2 50		1 50		10
438..	“	“	“	Artificial limbs.....	12	1,400	1,000	200	600		1		2 00				10
439..	Shawnee...	Topeka..	“	Boiler works.....	12	30,000	64,000	20,000	10,000		15		2 50		1 50		10
440..	“	“	“	Brick.....	7	3,000	14,000	4,000	6,000		20		2 00		1 50		10
441..	“	“	“	“	6	10,000	24,000	4,800	12,000		50		2 00		1 50		10
442..	“	“	“	“	6	1,200	16,000	3,000	9,000		35		4 00		1 50		10
443..	“	“	“	Carriages.....	12	10,000	15,000	4,000	5,000		6		1 99		1 50		10
444..	“	“	“	“	12	1,500	8,500	4,000	3,000		6		2 00				10
445..	“	“	“	“	12	8,000	8,000	3,000	3,500		5		2 00				10
446..	“	“	“	“	12												10

* Just started.

485.	Shawnee.....	Topeka.....	Preserving works.....	20,000	40,000	25,000	6,000	500	5	5	3 50	1 50	60	10
486.	“	“	Printing—binding.....	100,000	200,000	110,000	60,000	35,000	75	25	2 50	1 50	.....	9
487.	“	“	“	200,000	305,912	165,569	77,355	17,764	88	15	2 50	1 10	.....	9
488.	“	“	“	60,000	110,000	65,000	60,000	6,000	50	15	10 3 00	1 35	.....	9
489.	“	“	Printing—job.....	4,000	4,700	1,200	2,500	800	2	2	1 2 50	2 00	.....	91
490.	“	“	Printing—job, and stamps.....	7,500	15,000	4,000	6,500	700	11	2	2 50	1 00	50	35
491.	“	“	Printing—news-papers.....	50,000	100,000	45,000	35,000	2,000	45	1	19 3 00	2 00	.....	50
492.	“	“	“	20,000	20,000	5,000	9,000	2,000	10	1	3 00	2 25	.....	.....
493.	“	“	“	25,000	20,000	3,000	11,000	2,000	17	4	2 25	1 00	.....	10
494.	“	“	Shirt factory.....	1,500	1,500	300	700	.....	.....	.....	.....	.....	.....	10
495.	“	“	“	1,000	7,500	5,000	2,000	.....	.....	7	.....	1 00	.....	10
496.	“	“	Shoe factory.....	1,500	5,000	2,000	1,500	.....	.....	.....	1 70	.....	.....	10
497.	“	“	“	5,000	3,000	1,500	1,000	.....	2	.....	1 65	.....	.....	10
498.	“	“	Starch factory.....	80,000	66,000	26,333	15,560	496	20	10	1 60	85	75	10
499.	“	“	Stone—artificial.....	5,000	7,500	2,600	2,000	.....	5	.....	2 00	.....	.....	10
500.	“	“	Sugar factory.....	150,000	40,000	20,000	13,000	1,275	100	.....	2 50	1 50	.....	10
501.	“	“	Tailor—merchant.....	5,000	35,000	20,000	15,000	1,275	20	4	1 2 75	.....	.....	10
502.	“	“	“	7,000	27,300	9,000	8,730	750	10	.....	2 50	1 00	.....	10
503.	“	“	“	11,000	38,000	16,000	16,000	.....	20	4	2 50	1 00	.....	10
504.	“	“	“	1,500	5,000	3,700	300	.....	.....	.....	2 50	1 00	.....	10
505.	“	“	Tents and awnings.....	2,000	15,000	8,000	1,000	.....	1	3	2 00	1 00	.....	10
506.	“	“	“	2,000	10,000	3,500	3,500	500	6	.....	2 50	.....	.....	10
507.	“	“	“	5,000	5,000	2,000	1,800	600	4	.....	2 50	1 25	.....	10
508.	“	“	“	8,000	15,000	10,000	2,200	.....	.....	.....	2 50	.....	.....	10
509.	“	“	“	2,000	3,500	2,500	1,100	.....	3	.....	2 50	.....	.....	10
510.	“	“	“	15,000	3,500	5,000	1,000	.....	2	.....	2 50	.....	.....	10
511.	“	“	“	3,000	5,000	3,000	720	.....	1	.....	2 75	.....	.....	10
512.	“	“	“	7,000	12,000	6,000	3,000	.....	4	.....	2 50	.....	.....	10
513.	“	“	“	2,000	3,500	1,000	1,500	.....	3	.....	2 25	.....	.....	10
514.	“	“	“	1,000	3,000	1,000	1,500	.....	3	.....	2 25	.....	.....	10
515.	“	“	“	1,200	10,000	6,000	3,000	.....	3	.....	2 50	.....	.....	10
516.	“	“	“	500	3,000	1,500	1,500	.....	3	.....	2 50	.....	.....	10
517.	“	“	“	5,000	21,375	8,500	8,500	.....	10	.....	2 50	1 50	.....	10
518.	“	“	“	3,000	12,000	3,200	3,200	.....	4	.....	2 50	.....	.....	10
519.	“	“	“	1,000	18,000	6,500	3,000	.....	4	.....	2 50	.....	.....	10
520.	“	“	“	2,500	7,500	4,800	1,296	.....	4	.....	2 50	.....	.....	10
521.	“	“	Tool factory.....	2,500	3,500	800	5,200	.....	2	.....	2 50	.....	.....	10
522.	“	“	Trunk factory.....	15,000	15,000	3,000	5,200	.....	11	.....	2 50	.....	.....	10
523.	“	“	Vinegar factory.....	15,000	15,000	3,500	2,100	340	7	.....	2 50	1 25	.....	10
524.	Stafford	Macksville	Sorghum.....	800	1,300	700	2,350	.....	.....	.....	2 50	1 25	.....	12
525.	Sumner	Caldwell	Carriages.....	5,000	6,000	2,500	3,000	130	10	.....	2 50	.....	.....	10
526.	“	“	Brick.....	10,000	6,400	1,250	3,900	.....	14	.....	2 25	1 30	.....	10
527.	“	“	“	10,000	10,500	7,500	3,750	.....	7	.....	2 00	1 35	.....	10
528.	“	“	Carriages.....	1,500	11,500	3,000	3,500	.....	6	.....	2 50	.....	.....	9
529.	“	“	Cigars.....	7,000	8,000	2,300	3,600	.....	6	.....	2 00	.....	.....	10
530.	“	“	Foundry.....	50,000	12,000	8,100	2,000	.....	3	.....	2 00	.....	.....	12
531.	“	“	Gas.....	5,000	9,000	5,000	1,800	.....	3	.....	2 00	1 50	.....	10
532.	“	“	Harness.....	2,500	4,000	2,000	500	350	2	.....	1 66	.....	.....	10
533.	“	“	“	3,000	8,000	4,000	1,700	.....	3	.....	1 70	.....	.....	10
534.	“	“	Planing mill.....	6,000	8,000	3,000	2,700	.....	4	.....	2 25	1 50	.....	10

* Not completed.

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES—CONCLUDED.

County.	Town or city.	Industry.	No. of months in operation.....	Total capital employed.....	Value of product for the year.....	Cost of materials used.....	Amount paid for labor.....	Amount paid for interest, rent and taxes.....	Average No. of hands em- ployed.	Av. daily wages, skilled labor.	Average daily wages of unskilled labor.	No. of hours for a day's work.....
Sumner.....	Wellington.....	Pork packing.....	6	\$60,000	\$60,000	\$46,000	\$6,000		Men.....	\$2 25	\$1 00	10
		Salt works.....	12	7,000	2,500	800	1,000	\$650	Women.....	1 25		10
		Tailor, merchant.....	12	2,000	10,000	4,000	3,000		Men.....	2 50	\$0 75	10
		Water works.....	12	100,000	21,000	15,000	3,300	250	Women.....	1 50		12
		Alma.....	358	1,000	3,240	2,900	250		Men.....	1 25		12
		Dover.....	359	1,000	4,820	4,500	40		Women.....	1 50		12
		Esbridge.....	511	1,500	4,186	3,200	200		Men.....	1 50		12
		Keene.....	512	1,500	4,186	3,200	200		Women.....	1 66		12
		Haddam.....	513	600	300	300	100		Men.....	2 50		10
		Washington.....	514	1,000	3,000	1,800	1,000	8	Women.....	1 50		10
		Washington.....	515	300					Men.....	1 40		10
		Woodson.....	516	1,000	1,300	600	300		Women.....	1 50		10
Wyandotte.....	Argentine.....	Brooms.....	3	1,000	2,640	1,200	800		Men.....	2 00		10
		Carriages.....	12	500	1,300	800	900		Women.....	2 50		10
		Cement.....	3	30,000	14,000	6,000	7,000	600	Men.....	2 50		10
		Corrugated iron.....	9	100,000					Women.....	2 50		10
		Radiators.....	12	200,000	33,750	14,750	9,000	75	Men.....	2 50		10
		Silver smelter.....	12	100,000	770,000	500,000	111,655		Women.....	2 50		10
		Terra cotta.....	4	50,000	12,000	3,000	5,720	600	Men.....	1 60		10
		Baskets.....	12	50,000	22,050	5,000	14,625	2,000	Women.....	1 75		10
		Baskets and boxes.....	12	1,000	3,000	1,000	1,000	250	Men.....	1 75		10
		Brick.....	11	50,000	20,000	4,500	7,500	200	Women.....	2 00		10
		Broom.....	5	4,000	15,000	4,000	8,000	2,000	Men.....	1 80		10
		"	12	1,000	5,000	1,200	1,500	300	Women.....	1 75		10
Kansas City.....	Kansas City.....	"	12	500	4,000	1,000	1,500	300	Men.....	1 75		10
		"	12	3,500	12,000	4,500	3,500	150	Women.....	2 50	50	10
		Cement works.....	9	35,500	42,123	16,000	21,330		Men.....	2 00		10
		Clothing.....	12	25,000	175,000	100,000	35,000	320	Women.....	2 00	75	10
		Clothing.....	12	5,000	40,000	25,000	9,000	700	Men.....	2 00		10
		Cooperage.....	12	4,000	16,000	9,000	4,000	400	Women.....	2 00		10
		Destarching works.....	12	100,000	79,075	12,000	20,516		Men.....	2 75		10
		Foundry.....	12	100,000	150,000	85,000	62,000		Women.....	1 40		10
		Foundry and machine.....	12	5,000	10,000	4,500	4,000	500	Men.....	1 50		10
		"	12	6,000	12,000	4,000	6,000		Women.....	1 50	1 00	10
		Gas machines.....	11	120,000	40,000	24,000	6,000	4,400	Men.....	1 75		10
		Haystackers, rakes, etc.,	8	50,000	10,000	6,000	2,500	600	Women.....	2 25		10

	Wyandotte...	Kansas City...	Oil...	100,000	250,000	200,000	18,000	13,000	30	25	175	10
573..	Packing beef and pork...	12	800,000	4,000,000	300,000	13,000	620	250	1 60	65
574..	12	1,000,000	2,434,899	979,899	15,000	1390	230	1 25	75
575..	12	400,000	1,800,000	63,000	20,000	100	100	1 00	10
576..	12	5,000,000	2,834,261	103,130	20,000	10	48	1 75	10
577..	7	3,000,000	1,950,000	113,000	20,000	290	300	1 75	10
578..	Packing pork...	8	500,000	1,520,000	80,000	12,000	275	300	1 75	10
579..	12	425,000	1,600,000	115,000	12,000	168	7	1 50	75
580..	12	10,000	50,000	32,000	1,000	16	3	1 50	10
581..	Planing mill...	12	25,000	50,000	10,000	2,000	14	2	1 50	10
582..	Planing and turning...	12	15,000	20,000	4,500	1,000	15	2	2 25	10
583..	Planing mill...	5	15,000	25,000	9,000	8,000	15	3	2 25	10
584..	Printing—publishing...	12	40,000	100,000	80,000	12,000	16	3	1 50	10
585..	Soap...	12	9,000	20,000	15,000	400	4	2 50	1 50	10
586..	12	10,000	30,000	5,000	500	6	2 50	1 50	10
587..	Soda water, etc...	12	5,000	18,000	5,200	750	10	3 00	1 88	10
588..	Stock yards...	12	2,000,000	5,000	154,300	250	240	2 00	1 25	10
589..	Vinegar...	12	4,000	1,500	3,000	500	2	1	1 50	75
590..	12	10,000	3,000	3,000	600	6	2 25	1 50	10
591..	Wagons...	12	7,000	5,000	44,500	40	4	2 75	1 75	10
592..	Water works...	12	900,000	125,000	25,000	5,000	40	4 50	1 50	10
593..	Wooden ware...	12	30,000	46,500	45,000	2,500	50	2 50	1 50	10
594..	..	Rosedale...	Iron bridges...	12	100,000	250,000	126,000	2,500	70	3 00	1 50	10
595..	Wire works...	12	50,000	..	..	..	15	2 50	1 50	10

* Estimated.

† Five months in operation.

SUMMARY OF QUESTIONS ANSWERED BY EMPLOYERS
NOT INCLUDED IN THE FOREGOING TABLES.

ALLEN COUNTY.

Twelve thousand pounds of cheese was the last year's product of the factory, while the woolen factory operated all the year, except the three winter months, paying its employés weekly.

ANDERSON COUNTY.

The furniture factory located in Garnett operated the entire year, erected new buildings at a cost of \$8,000, and paid weekly.

ATCHISON COUNTY.

A brick yard paid weekly; wages same as previous year; had no accidents or strikes, and stated that it took 12 men eight hours to make 21,000 brick. A broom factory paid weekly; wages same as previous year. A carriage manufactory paid weekly; wages same as previous year; no accidents or strikes. A cigar factory paid monthly. A furnishing goods factory paid semi-monthly; no change in wages; no accidents, but had a strike lasting two days. A confectioner paid weekly; three hands made 300 pounds of candy per day; no strikes or accidents. The cooperage paid weekly; no accidents or strikes; making 30,000 barrels and 3,000 butter tubs during the year. The cracker factory increased wages 10 per cent.; had no accidents or strikes. The flax and excelsior factory paid weekly; wages the same, and no accidents. The electric-light and power company paid both weekly and monthly; no accidents. The large harness and saddle manufactory paid weekly; wages same; no accidents, but had a strike in the collar department lasting 10 weeks, caused by journeymen objecting to the number of apprentices employed; the strike was not a success. Another harness shop paid weekly; same wages; no accidents or strikes. A sash, door and blind factory paid weekly; no change in wages; no accidents and no strikes. A job printing and book bindery paid weekly. The water works paid both weekly and monthly; had no strikes or accidents.

BROWN COUNTY.

A harness-maker reports the average annual earnings of his hands at \$600; paid every Saturday; same wages as previous year; had no accidents and no strikes.

BUTLER COUNTY.

A brick-maker states that "seven hands will put 7,000 brick in kiln each day." He had no strikes or accidents, and paid weekly.

CHASE COUNTY.

A stone quarrying and sawing establishment employed as high as 130 hands, with an average of 60; paid stone-cutters \$4.50 per day, and unskilled labor \$1.75; wages same as previous year; paid 24th of each month; had no accidents or strikes.

CHAUTAUQUA COUNTY.

A harness-maker paid weekly same wages as previous year; no accidents and no strikes.

CHEROKEE COUNTY.

In the lead and zinc section, the men in one establishment averaged \$40 per month; another produced during the year 3,130 tons of zinc, and 219,000 pounds of lead ore, and had one man injured by his hand getting caught in the engine and breaking his arm; he recovered, and resumed work. In another, it cost \$6 per ton to clean zinc and \$8 per thousand pounds to clean lead. All these establishments paid weekly, in cash; one reports an increase of twenty-five per cent. in wages, the others report the same wages as preceeding year; no strikes occurred, and only one accident as reported above. The Weir City smelter manufactured 3,300 tons during the year, employed as high as 150 men, the labor per ton costing \$20; paid in cash on the 20th of each month, and had no accidents and no strikes.

CRAWFORD COUNTY.

One smelter in Pittsburg produced 3,000 tons, at a cost of \$80 per ton; another, 3,125 tons. One establishment reports the average annual earnings of hands, exclusive of superintendents and clerks: men, \$650; youths, \$140; and that 11 men produced one ton of metal every 24 hours. Another, that 50 men make 8,565 pounds of metal in 24 hours. These smelters paid monthly, save one, which paid weekly. No accidents, no strikes, and no lock-outs occurred during the year. A manufacturer of hay presses turned out 75 presses and 100 tie-makers during the year; employed as high as 16 men, whose yearly earnings averaged \$450. It cost for labor \$56 per press and \$3 per tie-maker; he paid monthly, and had no accidents or strikes.

CLAY COUNTY.

A foundry paid weekly; was burned out during the year, but nobody was hurt.

CLOUD COUNTY.

A soda water factory paid weekly. A foundry estimates that its mechanics averaged \$500 wages during the year; paid weekly, and had no accidents. A carriage factory also paid weekly, and got through the year without either accidents or strikes. A wagon shop reports a decrease of 20 per cent. in wages, but the others report no change.

COWLEY COUNTY.

A foundry reports that its workmen averaged \$810 for the year's work; paid every Saturday; no change in wages; no accidents, and says: "No trouble of any kind with men. We aim to pay good wages and to keep our men steadily employed." A planing mill and sash and door factory was troubled with neither strikes nor lock-outs; one man had the ends of two of his fingers taken off by a buzz-saw; this concern paid weekly, its pay-roll averaging \$85 per week. A stone quarry paid weekly, same wages as preceding year.

DAVIS COUNTY.

A planing mill estimates the annual average earnings of its hands at \$510; paid weekly, and had no accidents. In a soda water factory a boy was cut in the face by an exploding bottle.

DICKINSON COUNTY.

A pottery reports no change in wages, and pays weekly. A machine shop employed as many as 60 men, and averaged 30; paid monthly, and had no strikes or accidents. In a carriage manufactory 100 men turned out 10 finished vehicles daily; pay-day was "every other Tuesday;" no accidents and no strikes. The proprietor says in conclusion: "The above is 'about the size of it.' It being my first year in Kansas, can't answer some of the questions." A contractor and planing-mill pro-

prietor says his men earned an average of \$575 during the year; he paid them every Saturday; same wages as preceding year; had no accidents and no strikes. A creamery produced 900 pounds of butter daily; the workmen earned an average of \$450 during the year; pay-day the 15th of each month for work done during the previous month; wages had increased 15 per cent. during the year; it cost three cents' worth of labor to make a pound of butter; a butter-maker can handle 600 pounds of butter per day; no accidents and no strikes occurred.

DOUGLAS COUNTY.

A baking-powder company reports the average annual earnings of its employes, exclusive of superintendents and clerks—men \$610, women \$175; pays weekly, and finds wages increased 10 per cent. A barb-wire company produced 3,000 tons of wire; employed as high as 40 men, whose earnings for the year averaged \$650; paid every Saturday night; same wages as previous year. It cost 20 cents' worth of labor to produce 100 pounds of wire; a boy got a slight cut in the head from his own carelessness, an elevator fell with him; no strikes occurred and no lock-outs. The men in a job printing office and book bindery earned on an average \$630, women \$300, and children \$150; they were paid every Saturday, and wages increased during the year 15 per cent. A broom factory turned out 5,000 brooms. A canning factory put up 42,559 three-pound cans of tomatoes, 27,749 one-gallon cans of apples, 450,850 three-pound cans of baked beans, 79,028 empty tin cans, and 133,487 two-pound cans of corn. This establishment employed as many as 750 hands at one time; the average weekly earnings of the men was \$12.50, women \$5, and children \$3; wages were the same as during the previous year, and were paid weekly; no strikes, accidents, or lock-outs occurred. In a shirt factory as high as 80 hands at times were employed, with an average of 50; the men averaged \$10.47 per week and the women \$4; wages were the same as during the preceding year, and every Saturday afternoon was pay-day; no accidents and no strikes. A patent medicine manufactory paid monthly; no change in wages; no accidents and no strikes. A paper mill, manufacturing wrapping paper, turned out in six months 750 tons; paid every two weeks, same wages as previous year. The vinegar manufactory paid every Saturday, and the foundry also paid weekly, and had no accidents or strikes.

BOURBON COUNTY.

One printing and publishing establishment reports an increase of 5 per cent. in wages, pays weekly; no accident, and no strike. In a brick and tile manufactory it took one man to each 1,000 brick produced; eighty men were employed; no change in wages was made, which were paid weekly. A carriage manufactory paid weekly; no accidents or strikes. A harness and saddle manufacturer paid weekly; no change in wages; his men earned on an average \$50 per month. A hosiery mill reports a decrease of 3 cents per dozen in wages. It cost 40 cents in labor to knit a dozen socks; payments made weekly. A flagstone quarry shipped 500 cars loaded with 500,000 square feet of stone; wages had increased 5 per cent.; it cost 6 cents worth of labor per square foot, and one man could quarry from 300 to 500 square feet per day; wages were paid monthly. Another flagstone quarry shipped 426 car-loads; estimated that it took thirty men ten hours to produce and load two cars of stone; no change in wages, which were paid monthly. No accidents or strikes occurred in either of these quarries. A marble and granite yard paid weekly; no change in wages. A saw mill employing 52 hands pays weekly; same wages as previous year. It cost \$1.50 for labor per thousand feet of lumber produced; 42 men cut 30,000 feet in ten hours; none except very slight accidents occurred, and no strikes or lock-outs; the men earned an average of \$380 for the ten months, youths \$300. A

stoneware and drain-tile establishment paid weekly; same wages as previous year; 8 men in 6 days would produce 3,300 gallons stoneware, of \$165 value. The foundry and machine shop paid monthly; same wages as the year before; employed as high as 130 hands; no accidents occurred, and no strikes.

ELLSWORTH COUNTY.

A contractor paid weekly the same wages he had paid the previous year; had no accidents nor strikes.

FORD COUNTY.

The electric light and steam-heating company paid monthly; the men averaged \$66.66 per month. A brick manufactory paid weekly, and had experienced a 10-percent. increase in wages.

FRANKLIN COUNTY.

The workmen employed in a furniture and refrigerator factory earned an average of \$500 during the year; were paid the same wages as during the previous year, every two weeks.

GREENWOOD COUNTY.

A brick-maker paid weekly; no change in wages.

HARPER COUNTY.

A soda-water manufacturer paid monthly; no change in wages, no accidents, and no strikes.

HARVEY COUNTY.

A buggy and carriage manufactory, employing as high as 53 men, completed 500 vehicles, and had 200 more in process of construction. The workmen earned during the year an average of \$500 each; were paid weekly same wages as preceding year. The cost of labor to each vehicle was \$40. A cyclone, in March, 1888, tore the roof off of main building, killing one man; no damage to stock; cost of replacing roof, \$1,300. In a cigar factory the men averaged for the year \$675; 175,000 cigars were manufactured; it cost \$10 in labor to each 1,000 cigars. Payments were made weekly, same wages as preceding year. Another carriage factory paid weekly; no change in wages, no accidents, and no strikes. The workmen in a planing mill earned an average of \$650 during the year; were paid semi-monthly; no change in wages, no accidents, and no strikes. The yearly product of a wire and picket-fence company was about 3,000 rods; it cost 12 cents' worth of labor to make a rod of fence; the average earnings of hands was \$170 for six months; wages were paid monthly.

JEWELL COUNTY.

A washing-machine manufacturer states that it cost \$1.50 worth of labor to make a machine, and that one hand could make a machine in 7½ hours; he made 51 machines and put up 17 buildings during the year.

KINGMAN COUNTY.

A plow factory operated nine months; paid monthly; no accidents.

LABETTE COUNTY.

A brick-maker paid weekly same wages as preceding year; had no accidents.

LINCOLN COUNTY.

A cheese factory operated five months; paid monthly same wages. A harness-maker paid weekly same wages; no accidents or strikes.

LEAVENWORTH COUNTY.

Three hands made 150 gallons sorghum in 12 hours. A bag factory made 1,250,000 bags during the year; it cost \$2.58 worth of labor to make 1,000 bags; paid weekly,

and had no accidents nor strikes. A blank-book manufactory says skilled labor has increased 50 cents per day during the year, and pays weekly. Another pays weekly. A drain-tile and brick works made 100,000 tile and 30,500 brick, it costing \$7.50 in labor for 1,000 tile, and \$4.50 per 1,000 for pressed brick; could produce 4,000 tile and 10,000 brick per hour when run at full capacity; paid weekly. A broom factory made 3,000 dozen, at a cost for labor of 80 cents per dozen; one hand could make 2 dozen per day; paid weekly; average earnings of men for the year, \$450. A carriage manufactory paid weekly; no change in wages, and no accidents. Another paid weekly, and reports 10 per cent. reduction in wages. Of six cigar manufacturers, one made 240,000 cigars during the year, at a cost for labor of \$10 per thousand; another made 24,000; another averaged \$10 per thousand for labor; it cost another \$8 per thousand; all paid weekly. In one establishment a boy cut off a finger in the scrap cutting-machine; the rest had no accidents, and no strikes; wages were the same as previous year. One concern paid an average of \$12 per week; another, \$10. The men in another averaged \$530.40 for the year; youths, \$182; in another, men \$350. A cigar-box manufactory made 300,000 boxes; paid weekly; says wages increased 10 per cent.; two fires occurred, one burning out the establishment completely and the other partially; men earned an average of \$450. The foundry and machine shop paid weekly. The furnace company also paid weekly; men averaging \$550 for the year; no change in wages. A furniture factory paying weekly, reports a decrease of 10 per cent. in wages; men averaging \$620, youths \$210. A canning factory put up 700,000 cans of fruit and vegetables; paid weekly. The employés of the gas light company earned during the year an average of \$740; paid monthly; same wages. The glucose factory made 25,972,139 pounds; average yearly earning of hands, \$420; paid semi-monthly; same wages. The men in a harness and saddlery shop earned \$9 per week; paid weekly; same wages as previous year. The iron bridge works used 4,000,000 pounds of iron, the labor costing one cent per pound, and paid weekly. A marble and granite works say their men average \$475 for the year; paid weekly, the same wages as year before. Another says their men earned \$600, and also paid weekly. A patent medicine manufactory paid weekly; no change in wages. A planing mill also paid weekly. A soap factory turned out 1,313,620 pounds of soap; the men earned \$50 per month, and were paid weekly. The average annual earning in a stove works, for all, was \$400, and they were paid weekly; same wages as previous year. This concern turned out 7,000 stoves and 300 tons of castings. Another, also paying weekly, turned out 20,000 stoves. A merchant tailor paid weekly; same wages. The men in a tonic and mineral-water factory earned \$10 per week; were paid weekly, same wages as the year before. The men employed in a trunk factory earned an average of \$600 during the year; were paid weekly, with no change in the wages. In a wagon factory 90 men made 10 wagons a day, it costing \$20 worth of labor to make a wagon. This concern says their free skilled workmen earned on an average \$900 during the year; the convicts, employed under contract, cost 60 cents per day; the free workmen were paid monthly; no accidents occurred during the year. The water company paid part of their employés weekly and part monthly.

LYON COUNTY.

A bakery paid monthly, a carriage shop weekly; another carriage shop paid weekly. The hands in a cigar shop averaged \$10 per week, and were paid weekly; the cost of labor to each 1,000 of the 200,000 cigars made during the year was \$10, one hand making 200 per day. Another cigar-maker turned out 85,000 cigars during the year, at a cost for labor of \$10 per thousand; paid weekly. A furniture factory says the men averaged \$2 per day; were paid weekly, with no change in the

wages. A tin-ware establishment averaged \$2.50 per day for wages, and paid weekly. No accidents and no strikes occurred in the establishments reporting.

MARION COUNTY.

A slight accident occurred in a foundry caused by the leather coming off the emery wheel, temporarily injuring one man. Another man had an eye injured by the breaking of a belt; no change in the wages; the men averaged \$366.48 for their nine months' work. In a creamery the skilled workmen averaged \$100 per month; the unskilled, \$36; wages were paid monthly; no change, no accidents and no strikes.

MARSHALL COUNTY.

In a stone quarry the men were paid monthly; a wagon loaded with stone ran over a man, breaking his leg; a strike for higher wages lasted one-half day, not successful. In another stone quarry no accidents occurred, but the quarrymen unsuccessfully struck for higher wages, and the stone-cutters also struck for the same reason, and were "laid off." This concern also paid monthly; no change in the wages from the year before. In a carriage factory the average earnings of the workmen were \$500 for the year; labor cost 75 per cent. of the finished product; four men could make two vehicles a week; payments were made weekly. The workmen in a cigar factory average \$550 for the year; were paid weekly; same wages as preceding year. The proprietor says: "Usually a cigar-maker makes about 65,000 cigars in a year when he has steady employment. I usually make from 500,000 to 600,000 a year." He further says: "My men struck because I employed a non-union cigar-packer; the strike lasted two days." In another cigar factory the men averaged \$725 for the year, and were paid weekly. This shop produced 1,458,975 cigars, at a labor cost of from eight to fourteen dollars per thousand. The women employed earned \$200 each during the year.

MIAMI COUNTY.

In a carriage factory the men earned \$500 a year, youths \$180, and were paid every Saturday; no change in the wages; no accidents and no strikes. The proprietor of the handle factory located in this county writes that business has been too light to justify a report.

MITCHELL COUNTY.

A saddle and harness-maker says his men averaged \$10 per week, paid weekly, and had no accidents or strikes. A broom-maker turned out 608 dozen brooms, at a labor cost of \$1 per dozen.

MONTGOMERY COUNTY.

A mattress factory says its men earned \$10 per week and its women \$6, paid every week; no change in wages. A carriage factory paid weekly; very little decrease in wages; no accidents and no strikes. The water works say that their men averaged \$50 per month; paid monthly; no accidents and no strikes.

A creamery in Morris county paid monthly; no change in wages; no labor troubles.

NEMAHA COUNTY.

A butter and egg-packing establishment shipped 135,000 dozen eggs, 20,000 pounds of butter and two car-loads of poultry valued at \$50,000; paid their employes weekly, the same wages as previous year. The annual output of a creamery was 7,000 pounds of butter; men with team earned an average of \$775 for the year's work; paid wages weekly; it cost \$3 worth of labor to produce 100 pounds of butter. A manufacturer of calf-weaners paid his men weekly; made 1,899 dozen weaners in the course of the year, his men earning on an average \$300. A cigar factory paid weekly, made 50,000 cigars at a labor cost of \$7 per 1,000. The average annual earnings of the men employed in a wagon shop was \$700, and they were paid weekly.

NEOSHO COUNTY.

A carriage factory paid weekly, same wages as preceding year; reports a decrease in business; had no accidents and no strikes. A machine shop also reports a very light business.

OSAGE COUNTY.

A brick concern reports no accidents and a very light business. Another, made 120,000 brick at a labor cost of \$4.50 per thousand; says 15 hands will produce 6,000 brick in 10 hours; paid wages weekly.

OTTAWA COUNTY.

A pork-packing establishment worked nine hours and paid weekly, same wages as previous year; had no accidents and no strikes; paid on an average \$2 per day for labor. A foundry and machine shop had three partners, who performed all the labor, and employed no wage-workers. A contractor employed part of the year as many as fifteen men, at an average of \$2.25 per day; paid weekly; no change in wages; no accidents and no strikes. A sorghum mill paid weekly; made about 40 gallons of syrup per day with four men and one woman; it costing for labor about ten cents per gallon, and making in one and a half months 1,200 gallons.

PAWNEE COUNTY.

A wind-mill factory made 100 mills and repaired a large number; the men earned an average of \$416 during the year; wages had decreased about 10 per cent., and were paid weekly.

RENO COUNTY.

A foundry paid generally every two weeks; the cost of labor was from \$11 to \$25 per ton of castings.

RILEY COUNTY.

A stone-working concern paid weekly, same wages; no strikes or accidents.

ROOKS COUNTY.

A brick-yard says its men earned \$210 for six months' labor; paid semi-monthly; no change in wages; 24 men could put up a kiln of 140,000 brick in seven days, at a cost per thousand of about \$2 for labor.

SALINE COUNTY.

A butter and cheese factory made 93,588 pounds of butter and 25,307 pounds of cheese, the men employed earning on an average \$57.50 per month; no change in wages, which were paid monthly. A carriage and spring-wagon factory paid its workmen an average of \$2.25 per day, weekly; wages had neither increased nor decreased, compared with previous year.

SEDGWICK COUNTY.

A pressed brick company made 4,000,000 brick during the year; it costing \$3.50 worth of labor per thousand, and took 14 hands ten hours to make 20,000; wages same as preceding year; paid monthly; average earnings of employes, \$2 per day. Another brick-yard and building concern made 10,000,000 brick; employed as many as 465 hands; paid monthly in the brick-yard, and weekly to men employed in building. The cost of labor to each thousand of brick was \$4.80; the wages to bricklayers was \$5 and \$6 for nine hours' work, \$2.50 to \$3.50 to brick moulders, and \$1.75 to ordinary labor; wages had decreased 5 per cent. from previous year. A coffee-roasting and spice-grinding establishment employed in the busy season 30 hands; the men earned an average of \$400 during the year, and the women \$200; worked nine hours and paid weekly; no change in wages; no accidents and no strikes. The arc and incandescent electric light company received from \$6 to \$8.33 per month for

each arc and \$2.50 to \$6 per month for each incandescent light; their men earned an average of \$640 during the year; worked from 6 to 10 hours; were paid monthly at an advanced wage of from 5 to 10 per cent. One man had his hands badly burned by the electric current: "After six weeks of good treatment the hand resumed his usual health and strength." Twelve million feet of gas was made, and 120 electric lights were operated by the gas and electric light company. Fifty men were the greatest number employed at one time; the average wages were \$1.75 per day, paid partly weekly and partly monthly; no change from preceding year in per diem wages; no accidents and no strikes. The Architectural Iron Foundry employed at one time during the year 67 hands; paid from \$2.75 to \$3 per day for skilled, and \$1.50 to \$1.75 for unskilled labor; wages had increased over preceding year 15 per cent. and men were paid weekly. A foundry and machine shop employed as high as 72 men; paid weekly; wages decreased 12 per cent; no accidents and no strikes. A harness and saddle manufacturer employed as many as 24 men a portion of the year; paid weekly; no accidents and no strikes. The men employed in a manufacturing and repairing establishment earned an average of \$750 during the year; were paid daily; labor cost 50 per cent. of the value of product. In a planing mill as many as 45 men were employed a part of the time, earning an average of \$2 per day; were paid weekly; the wages of a portion of the employes increased 25 cents per day, and of another portion decreased 5 cents: "One old hand who thought he couldn't get hurt, got careless and was injured, not very seriously; he is now at work again." A sash and door company employed at one time 30 men; paid \$2.50 for skilled and \$1.35 for unskilled labor; paid weekly. A printing and blank-book manufactory employed as many as 120 hands; the men earned an average of \$3 per day, the women 80 cents and the children 50 cents; were paid weekly; no change in wages from preceding year; coal cost 10 cents a bushel; no accidents and no strikes. A vinegar factory paid weekly, skilled labor \$2.50 per day, unskilled, \$1.50; the average earnings for the year was \$400.

SHAWNEE COUNTY.

In a carriage factory the men earned an average of \$11.90 per week; worked 10 hours for 9 months in the year, and 9 hours the other 3 months. Wages were paid every Saturday, and had increased 5 per cent. over the previous year. Labor cost 70 per cent. of the product, and one man could build an ordinary top buggy in 16 days. Both members of the firm were mechanics and put in full time themselves. A confectioner employing 6 hands paid his skilled workmen \$12 per week, unskilled, \$6; women from \$3 to \$6; paid every Saturday; no change in wages. The cotton cloth factory was in process of erection at the close of the year covered by this report—June 30, 1888. The arc electric light and power company employed from 7 to 12 men; paid monthly, \$2.50 per day for skilled labor and \$1.75 for unskilled. A foundry and machine shop employed from 25 to 30 men; paid every Monday evening; skilled labor \$2.75, unskilled \$1.50 per day; average daily wages for all, \$2.10. A small fire occurred, doing some damage to a shed, was the only accident reported. No strikes, and no change in amount of wages. Another foundry working on stoves and general castings manufactured about 200 tons of iron during the year, the labor cost of the product being about \$20 per ton. Paid weekly, an average of \$2.40 per day for skilled labor, and \$1.50 for unskilled. The yearly product of a coke and gas company was 21,376,810 cubic feet of gas; employed as many as 60 men for a part of the year; those men who worked throughout the year earned an average of \$650 each; skilled labor was paid \$2.50 and unskilled \$1.50 per day, working from 10 to 12 hours according to nature of employment; part of the force was paid weekly and part monthly; no accidents or strikes occurred. The employes of a harness and saddle manufactory were paid \$2 per day, and earned an average of

\$550 apiece during the year; wages were paid every Saturday; no change in per diem from the year preceding. Labor represented about 25 per cent. of the finished product, it taking 6 men 1 day to make 2 sets of double harness, the employer stating that this would be considered a fair week's work for one man. A maker of harness and shoe uppers employed from 9 to 12 men; paid \$2 per day for skilled and \$1.50 for ordinary labor; the labor cost of making a set of work-harness (double) was \$6, for a pair of shoe uppers 85 cents. The proprietor says, "a good harness maker will produce two sets of double work-harness per week, and upper makers 15 pairs of uppers per week." He paid his workmen at the end of every week, and turned out during the year 700 sets of double harness and 1,100 pairs of shoe uppers. The steam laundry employed from 35 to 45 hands, the skilled workmen averaging \$2 per day and the women \$1.50; unskilled men \$1.25, women \$1, children 50 cents; payments were made every Saturday night; wages had advanced 10 per cent.; the average daily earnings of all employes were, for men \$1.75, women \$1.35. A manufacturer of granite and marble monuments and headstones employed from 6 to 8 men; paid skilled labor \$2.50 per day and unskilled \$1.50; paid weekly; no change in wages. A manufacturer of mattresses and mattress springs worked from 4 to 10 hands; paid his men \$2 per day; paid weekly. A street paving company worked from 300 to 535 men; paid skilled workmen \$2.25 per day and unskilled \$1.50; paid wages every two weeks; no change in wages from preceding year, no accidents and no strikes. A sash, door and blind manufacturing company worked 45 men, paying skilled labor \$2.50 per day and unskilled \$1.50; wages had advanced with some of their workmen, and were paid from the 15th to the 20th of each month. A plumbing and steam-fitting establishment employed from 12 to 17 men, who earned an average of \$450 during the year; skilled workmen were paid \$2.75 per day and unskilled \$1.50; wages were paid weekly; same price as preceding year. Another plumbing and steam-heating establishment employed from 12 to 18 men; paid \$3.50 per day for skilled and \$1.50 for unskilled labor; paid every Saturday. A concern engaged in preserving and pickling fruits and vegetables put up 60 tons during the year; employed from 5 to 25 hands, the men averaging \$40 per month and the women 60 cents per day; skilled labor was paid \$3.50 and unskilled \$1.50 per day; wages were paid weekly and had decreased 10 per cent. A lithographing company, engaged in printing, lithographing and the manufacture of blank books, employed 100 hands; paid skilled labor, men \$2.50 per day and women \$1.50; wages were paid weekly. A printing, binding, electrotyping and blank book company reports the average annual earnings of the hands, exclusive of superintendents and clerks, to have been: men \$781.45, women \$343.87, youths \$287.04; from 133 to 145 hands were employed; the men averaged \$2.50 and the women \$1.10 per day; payments were made weekly; no change in wages. A printing and binding establishment employed from 75 to 80 hands; the average earnings of the men employed for the year was \$884, women \$312, youths \$260; skilled labor earned, men \$3 per day, women \$1.35; wages were paid weekly. A job-printing establishment employed from 5 to 8 hands; skilled labor received, men \$2.50, women \$2 per day; unskilled, men \$1.50; wages paid weekly, no change; three slight accidents to pressmen occurred. A job printing and manufactory of rubber stamps, seals, stencils, etc., employed 18 hands; paid for skilled labor, \$2.50 per day to men and \$1 to women; unskilled labor, men \$1.50, women 50 cents, children 35 cents; wages were paid weekly; no change from preceding year. A printing and newspaper office employed from 65 to 75 hands; the men earned an average of \$2.50 per day, the boys 50 cents; wages decreased 10 per cent. and were paid weekly. A publishing and printing office employed 10 hands; paid the men \$3 per day and the women \$2; paid weekly, and wages suffered a decrease of 10 per cent. A newspaper office employed 19 hands; the average an-

nual earnings of both men and women were \$675; the average daily wages paid to employes of both sexes being \$2.25; wages suffered a decline of 20 per cent., and were paid weekly; type-setting cost 30 cents per 1,000 ems; in addition 23 boys were employed as carriers, earning an average of \$3.33 per week. No accidents, except the slight ones to the pressmen mentioned, occurred in any of these printing establishments during the year, and no strikes or lockouts were encountered. A starch factory employed 30 hands; the men earned from \$1.50 to \$1.60 per day, and the women from 75 to 85 cents; wages were paid weekly. An artificial stone manufactory produced 50,000 feet during the year; employed from 5 to 12 men, paying them from \$1.50 to \$2 per day; the employes earned in 10 months an average of \$350; wages were paid every two weeks. A manufactory of sugar and syrups in operation 3 months employed from 100 to 135 men, paying \$2.50 per day for skilled and \$1.50 for unskilled labor; during the 3 months this establishment produced 225,000 pounds of sugar, 100,000 gallons of syrup and 15,000 bushels of cane seed. A merchant tailoring establishment employed 24 hands, the men earning an average of \$18 per week, and the women \$10.50; wages were paid every Saturday night, and had increased about 10 per cent. over preceding year; the labor cost of a suit of clothes was from \$15 to \$18, it taking one man from 4½ to 5 days to make a full suit. Another merchant tailor employed from 10 to 14 men, who earned \$2.50 per day on an average; 9,200 garments were made during the year; about 33½ per cent. was the proportionate cost of labor in the finished product; the capacity of the establishment was from 15 to 18 suits per week; wages were paid weekly, and remained the same as during the previous year. A tinning establishment employed 6 to 8 men; paid weekly, an average of \$2.50 per day. Another employed 4 men; paid both weekly and monthly; skilled labor averaged \$2.50 per day and unskilled \$1.25; the average annual earnings of the hands were \$450. The vinegar works employed 5 men; paid skilled labor \$2.50 per day and unskilled \$1.25, the average for all being \$1.50; wages were paid monthly.

SUMNER COUNTY.

A carriage manufactory employed 10 men; average wages \$2.50 per day, paid weekly; no change from preceding year. A harness and saddle-maker paid \$2 per day for skilled and \$1.50 for unskilled labor; wages were paid weekly. Another says his men average \$10 per week; paid every Saturday night. A merchant tailor says his men earned during the year from \$275 to \$300; women \$250; children \$100; paid skilled labor, men \$2.50 per day, women \$1.25; unskilled, men 75 cents, women 50 cents; wages paid every Saturday night. Three hands made a suit of clothes in two days and a half.

WASHINGTON COUNTY.

A broom maker says he turned out 1,500 dozen of brooms during the year; employed 4 and 5 men; says he can't give correct wages, as his shop is a family affair.

WABAUNSEE COUNTY.

A creamery produced 105,000 pounds of butter; employed 8 to 11 men; the employes earned an average of \$35 a month with board; wages \$1.25 to \$1.50 per day; worked from 8 to 15 hours; wages paid when asked for. This force made 400 pounds of butter in 2 hours. Under the head of "accidents" the proprietor facetiously remarks: "One of the men drank two gallons of buttermilk at once;" and says the farmers are on a strike the year round for higher prices for cream, but thus far without result.

WYANDOTTE COUNTY.

A cement manufactory employed from 50 to 65 men; produced 25,000 barrels in 3 months; paid skilled labor \$2.50, and unskilled \$1.50 per day; paid weekly. A manufactory of corrugated iron for buildings, just started, paid \$2.50 and \$1.50

per day; employed 40 men; paid weekly. A radiator manufactory had been in operation 3 months; employed 100 men; paid \$2.50 for skilled and \$1.50 for unskilled labor; paid every two weeks; produced in 3 months 135,000 feet of radiating surface; labor cost 17 cents per foot; it took 100 men 90 days to produce this amount. The brick and terra-cotta works produced 300,000 bricks in 4 months; employed 35 men, whose average earnings for the 4 months were \$182; skilled labor earned \$2.50 per day, and unskilled \$1.50; wages were paid weekly; labor cost \$3 per 1,000 brick; 11 men made 10,000 brick per day. A concern engaged in digging, drying, and shipping brick-clay, employed from 30 to 85 hands; had been in operation 12 months, and had shipped 2,100 cars; the average earnings for the year were \$525 for the men, and \$300 for youths; the men were paid \$1.75 per day, and the youths \$1; wages were paid monthly; it cost \$2,500 to prepare a shed of 400 car loads of the clay, and it cost \$2 a car for loading; 30 hands prepared, loaded, and shipped about 7 cars a day, take it the year round. A basket factory estimates the average yearly earnings of its hands (men) at \$500; paid \$1.75 per day; paid weekly. A brick yard in operation 5 months paid skilled workman \$2.75 per day, unskilled \$1.75; paid semi-monthly; employed from 17 to 30 men and 8 boys; produced 350,000 brick, costing for labor \$3 per thousand; 11 men made 10,000 brick in 8 hours. A broom factory produced 2,000 dozens of brooms in 12 months; employed from 4 to 6 men; average earnings for the year \$550; daily wages \$1.50 to \$1.80; paid weekly; labor cost \$1 per dozen. Another broom factory turned out 1,500 dozen brooms with 3 men; yearly earnings \$500; daily wages \$1.75; paid weekly. Another turned out 50 dozen per week; employed from 10 to 12 hands; daily wages, men \$1.75, boys 50 cents; paid weekly; labor cost 40 cents per dozen; 5 men and 5 boys could produce 120 dozen per week. A clothing manufactory made 20,000 dozens overalls, etc.; employed from 100 to 150 hands, mostly women; average annual earnings of men, \$600; women, \$300; average daily wages, skilled, men \$2.50, women \$2; unskilled, men \$1.50, women 75 cents; wages were paid weekly (every Monday). A cooperage employed from 18 to 40 men, whose average yearly earnings were \$550; skilled labor \$2 per day, unskilled \$1.50; wages paid weekly; the labor expended on a flour barrel was 9 cents, on a tierce 30 cents. Another cooperage employing from 7 to 10 men estimates their average annual earnings at \$550; paid skilled labor \$2, unskilled \$1.50; paid weekly. A foundry employed from 90 to 130 men; average annual earnings \$650; paid skilled labor \$2.75, unskilled \$1.40; paid every Saturday; labor cost to each 100 pounds of castings \$1.50. A foundry and machine shop employed from 6 to 8 men and 1 boy; average annual earnings of men \$750, boy \$200; skilled labor \$2.50, unskilled \$1.50, boy \$1 per diem; paid weekly. Another employed from 8 to 10 men and 1 boy; annual earnings, men \$750, boy \$250; skilled labor \$250, unskilled \$1.50, boy \$1 per day; paid weekly. A gas manufactory employed at one time 170 men; ordinary force, 10; paid skilled labor \$2.50 per day, unskilled \$1.75; made during the year 5,000,000 cubic feet of gas; paid wages semi-monthly. A gas light and heating company, manufacturer of gas machines, and doing plumbing and steam fitting, had been 11 months in operation, and had built 32 machines; employed from 13 to 27 hands; paid skilled labor \$3 per day, unskilled \$1.75; paid weekly; wages had increased 10 per cent. during the year. It took 2 men 10 days to make a machine; the labor cost being \$32. A harness and saddle maker employed from 4 to 6 men, who earned an average of \$600 during the year; daily wages \$2; paid weekly; it took 1 man 3 days to make a set of common double harness, longer for fine harness; the labor cost for set of harness was \$6.50. A manufacturing company engaged in making hay-stackers, rakes, rollers, etc., employed from 30 to 50 men, paying skilled labor \$2.25, and unskilled \$1.50 per day; paid every Saturday. A tank line company employed from 30 to 45 men; paid from \$1.75 to \$2.25 per day; average for

all \$2; wages were paid every Saturday. A pork and beef packing establishment employed from 750 to 1,000 hands; paid skilled labor (men) an average of \$2.50 per day, unskilled, men \$1.60, women \$1, boys 50 to 75 cents; wages were paid every two weeks. One man was seriously scalded, and died from the effects. He was standing on three planks, and from some cause fell off them into a tank of scalding water; the planks were not displaced by his fall. Another pork and beef packing house employed from 1,700 to 2,300 hands; these hands earned during the year, exclusive of the salaries of superintendents and clerks, the sum of \$927,639.35; skilled labor earned on an average \$2.75 per day (men), and \$1.25 (women); unskilled, men \$1.60, women 66 $\frac{2}{3}$ cents, boys 75 cents; wages were paid weekly. One man was killed by being caught between a horse-cart and a girder. A beef, hog and sheep packing house employed from 140 to 200 hands; killed during the year 96,000 hogs, and 13,008 cattle; paid skilled labor, men, an average of \$3 per day, women \$1, unskilled men \$1.75; paid every two weeks. A pork packing house in operation eight months, packed 35,000,000 pounds of pork, employed from 300 to 400 hands, paid skilled labor an average of \$3 per day, unskilled \$1.75; wages were paid every alternate Tuesday. Another pork-packing establishment packed during the year 21,000,000 pounds of pork, employed from 175 to 325 hands; average annual earnings of hands, exclusive of salaries paid superintendents and clerks—men \$575, boys \$200; average daily wages paid skilled labor—men \$300; unskilled—men \$1.50, boys 75 cents; wages paid every Monday noon; one man scalded so badly that he died, accident due to his own carelessness. In all of these packing houses the wages were the same paid as during the preceding year; no accidents occurred except those noted, and no strikes or labor troubles took place. A planing mill and manufactory of sash, doors, blinds, etc., operated 5 months, employed from 15 to 20 men at an average of \$2.50 per day; skilled labor was paid \$3 and ordinary \$2.25, per day; wages were paid every Monday; no accidents of any consequence occurred. Another planing mill employed from 16 to 30 hands; average yearly earnings, men \$600, boys \$200; wages from \$1.50 to \$2.25 per day; paid weekly. A planing and turning mill employed 16 hands; yearly earnings, men \$650, boys \$250; daily wages, men from \$1.50 to \$2.50, boys \$1; paid weekly. A soap factory employed 20 hands; men \$1.50, women \$1 per day; paid once a week. Another soap factory produced 24,000 pounds; employed from 4 to 7 men; yearly earnings \$500; wages from \$1.50 to \$2.50; paid weekly. Another made 36,000 pounds; employed from 6 to 10 men; yearly earnings \$550; wages from \$1.50 to \$2.50 per day; paid weekly. A soda water factory and manufactory of carbonate beverages produced 29,000 cases, 24 bottles to the case; employed from 10 to 15 men; average annual earnings \$562.50; daily wages, skilled \$3, unskilled \$1.87 $\frac{1}{2}$; paid weekly; the labor cost per case was 35 cents, and ten men could make and distribute 96 cases per day. The stock yards employed 240 men and paid in wages for the year \$154,300, an average of \$642.91; hours worked per day from 8 to 12; wages paid monthly. The men employed in a vinegar factory earned \$600 apiece during the year; wages from \$1.25 to \$2 per day; paid weekly. In another vinegar factory the men averaged \$550 for the year, boys \$250; daily wages, men from \$1.50 to \$2.25, boys 75 cents; paid weekly. In a wagon shop 50 new wagons were turned out; the men earned on an average \$600 during the year; skilled labor earned \$2.75 per day and unskilled \$1.50; paid weekly. The water company employed at one time 100 men, ordinary force 40; average annual earnings \$700, average daily wages for skilled labor \$4.50, unskilled \$1.75; paid semi-monthly. An iron bridge company employed from 70 to 75 men; average annual earnings \$600; average daily wages, skilled labor \$3, unskilled \$1.50; paid weekly; cost of labor per unit of product, $\frac{1}{4}$ cent per pound. A wire fence company employed 15 men; paid from \$1.50 to \$2.50 per day.

In the following tables the reports are in accordance with the character of the material most largely used in the process of production:

CLASSIFIED INDUSTRIES.

No. of returns.....	Industries.	Average number of months in operation.	Total capital employed.	Value of product for the year.	Cost of materials used.	Amount paid for labor.	Amount paid for interest, rent and taxes.....	Average number of employes.....
ANIMAL.								
23	Butter and cheese.....	8	\$122,400	\$202,246	\$128,452	\$26,234 00	⁵ \$1,053	77
1	Desiccating.....	12	100,000	79,075	12,000	20,516 90	.....	30
1	Egg house, etc.....	12	8,000	50,000	44,000	1,100 00	.....	3
10	Packing meat.....	10	8,206,000	15,857,058	13,892,261	1,649,730 21	⁶ 60,250	3,456
7	Soap.....	12	141,000	279,000	161,530	33,900 00	² 1,280	49
1	Stock yards.....	12	2,000,000	.....	.....	154,300 00	.....	240
43	Totals.....	.....	\$10,577,400	\$16,465,221	\$14,238,243	\$1,885,781 11	\$62,658	3,854
LEATHER.								
28	Harness, saddles, etc....	12	\$314,600	\$595,300	\$364,700	\$138,030 00	¹⁰ \$6,146	1
7	Shoes, boots, etc.....	12	21,900	75,100	40,900	10,200 00	.....	.....
4	Trunks, etc.....	12	19,500	43,500	18,500	15,200 00	.....	.....
39	Totals.....	.....	\$356,000	\$713,900	\$424,100	\$163,430 00	\$6,146	244
MINERAL.								
8	Lead and zinc crushers,	7	\$69,550	\$319,647	\$202,070	\$71,140 00	⁵ \$6,150	127
5	Lead and zinc smelters,	12	350,000	932,963	616,622	234,661 76	² 2,850	430
1	{ Silver and lead smelter and refiner. }	12	100,000	770,000	500,000	111,635 00	.....	253
14	Totals.....	.....	\$519,550	\$2,022,610	\$1,318,692	\$417,436 76	\$9,000	810
METAL.								
2	Boiler works.....	10	\$36,000	\$68,500	\$25,000	\$12,000 00	.....	21
2	Bridges, iron.....	12	200,000	550,000	326,000	95,000 00	¹ \$2,500	170
7	Cornices, iron.....	11	42,500	227,000	147,500	48,960 00	.....	102
1	Corrugated iron.....	.....	100,000	.....	.....	.....	.....	40
3	Fence, etc., wire.....	10	177,000	304,000	241,000	15,500 00	¹ 130	42
1	File manufactory.....	12	3,500	3,500	1,200	1,000 00	.....	2
31	{ Foundry and ma- chine shops. }	11	804,270	1,454,061	732,000	456,061 81	⁸ 5,879	846
7	Foundries, stove.....	12	510,000	485,500	184,800	169,800 00	⁵ 5,900	317
1	Furnace, heating.....	12	11,000	20,338	14,490	4,107 00	¹ 269	7
1	Nickel-plating.....	12	5,000	10,000	1,000	5,000 00	.....	10
1	Novelty works.....	12	500	2,700	400	800 00	¹ 221	2
2	Plumbing.....	12	14,000	55,000	31,000	9,935 20	¹ 780	24
1	Radiator, iron.....	9	200,000	33,750	14,750	9,000 00	¹ 75	100
22	Tin roofing, etc.....	12	146,950	177,376	84,748	51,136 00	⁴ 2,658	86
82	Totals.....	.....	\$2,250,720	\$3,391,725	\$1,803,883	\$878,300 01	\$18,412	1,769
LIGHTING.								
1	Carbon oil.....	12	\$100,000	250,000	\$200,000	\$18,000 00	.....	30
5	Electric light.....	12	300,000	80,000	29,928	27,789 00	¹ \$1,901	39
2	Gas.....	12	170,000	52,000	32,100	8,000 00	¹ 4,400	13
1	Gas and coke.....	12	125,000	50,000	14,000	15,500 00	¹ 3,877	25
4	Gas and electric light,	12	550,000	155,000	77,500	53,000 00	² 3,300	75
13	Totals.....	.....	\$1,245,000	\$587,000	\$353,528	\$122,289 00	\$13,478	182
SALT AND WATER.								
1	Ice, artificial.....	7	\$65,000	\$30,000	\$7,165	\$15,000 00	.....	35
6	Salt.....	1½	262,000	5,000	.....	.....	.....	75
5	Water works.....	12	1,565,000	225,000	83,000	68,837 00	² \$27,890	66
12	Totals.....	.....	\$1,892,000	\$260,000	\$90,165	\$83,837 00	\$27,890	176

¹ One report.² Two reports.³ Three reports.⁴ Four reports.⁵ Five reports.⁶ Six reports.⁸ Eight reports.¹⁰ Ten reports.

CLASSIFIED INDUSTRIES—CONTINUED.

No. of returns.....	Industries.	Aver. No. of months in operation.....	Total capital employed.	Value of product for the year.	Cost of materials used.	Amt. paid for labor.	Amount paid for interest, rent and taxes.....	Average number of employes.....
STONE, CLAY, ETC.								
39	Brick, tile, drain pipes, and terra-cotta.....	6	\$302,200	\$376,220	\$81,925	\$200,070	⁷ \$6,373	738
1	Brick and contracting.....	12	50,900	125,000	10,000	94,857	.....	150
4	Cement.....	9	180,500	134,823	51,800	65,030	¹ 600	177
2	Flagstones.....	12	80,000	87,334	6,000	51,000	² 2,500	80
1	Glass factory.....	10	75,000	150,000	40,000	50,000	.....	75
2	Lime, white.....	7	5,000	11,607	5,500	4,500	.....	12
15	Marble, granite, etc.....	12	113,000	238,500	85,325	65,708	⁴ 2,290	115
1	Paving, street.....	6	1,250,000	300,000	150,000	112,000	.....	300
1	Plaster.....	8	10,000	12,000	3,000	3,500	.....	12
4	Pottery.....	11	22,000	41,400	18,400	12,800	¹ 100	34
1	Stone, artificial.....	10	5,000	7,500	2,600	2,000	.....	5
2	Stone saw mills.....	8	33,000	52,500	9,000	32,900	.....	63
3	Stone quarries.....	7	8,000	47,200	3,050	40,550	¹ 5	67
2	Stone works.....	10	30,000	59,700	9,000	39,900	550	67
78	Totals.....	.....	\$2,163,700	\$1,648,784	\$475,600	\$774,815	\$12,418	1,895
FRUIT AND SACCHARINE.								
3	Canning, fruit and vege...	6	\$99,100	\$240,000	\$68,984	\$93,738	¹ \$3,432	1,365
8	Confectionery.....	11	26,000	114,750	82,220	23,760	⁶ 1,460	41
1	Fruit evaporator.....	3	6,000	18,000	10,250	3,000	.....	20
1	Fruit extracts.....	12	20,000	33,500	16,950	5,200	.....	9
1	Glucose factory.....	10	1,322,500	628,525	490,666	43,087	¹ 1,852	100
1	Preserving fruit and veg...	12	20,000	40,000	25,000	6,000	¹ 500	10
11	Sugar and syrup.....	3	258,700	110,600	44,515	32,550	¹ 80	245
26	Totals.....	.....	\$1,752,300	\$1,185,375	\$738,585	\$207,336	\$7,324	1,790
GRAIN, ETC.								
3	Bakeries.....	12	\$4,700	\$15,500	\$10,500	\$2,540	⁵ \$74	6
2	Baking powder.....	12	115,000	50,000	17,000	20,500	¹ 600	28
2	Coffee and spice.....	12	38,000	145,000	104,000	11,800	¹ 1,200	21
1	Crackers and candy.....	12	100,000	150,000	69,700	20,000	.....	45
5	Cracker factories.....	10	220,000	210,000	125,000	38,080	¹ 600	124
1	Oil, castor and linseed.....	12	30,000	60,000	35,000	6,000	.....	10
1	Seeds, vegetable, etc.....	3	500	1,000	191	212	.....	3
1	Starch factory.....	12	80,000	66,000	26,933	15,561	¹ 496	30
16	Totals.....	.....	\$588,200	\$697,500	\$383,328	\$114,693	\$2,970	367
WOOD.								
5	Agricultural implements..	8	\$84,500	\$122,400	\$79,300	\$11,400	² \$900	63
1	Art goods.....	12	6,000	20,000	10,000	2,400	.....	4
1	Artificial limbs.....	12	1,400	1,000	200	600	.....	1
1	Car manufactory.....	12	2,000,000	3,840,000	3,000,000	120,000	.....	304
44	Carriages and wagons.....	12	804,400	926,894	444,800	301,083	⁶ 22,330	539
2	Baskets and boxes.....	12	51,000	23,000	5,500	8,500	² 750	4
19	Broom factories.....	11	22,925	65,952	24,964	22,836	⁵ 1,062	56
1	Calf-weaners.....	10	1,500	2,945	869	900	¹ 130	3
2	Contractors.....	12	5,000	40,000	26,700	6,500	¹ 175	13
5	Cooperage.....	12	34,000	100,600	58,700	25,500	³ 1,210	61
10	Furniture.....	12	217,000	321,000	118,750	112,575	³ 8,300	247
6	Mattress.....	10	33,800	170,500	113,500	25,450	¹ 600	74
2	Picture frame.....	12	2,500	4,500	2,700	1,300	.....	2
28	Planing, sash, doors, and blinds.....	11	600,500	1,408,110	780,550	317,505	⁶ 4,890	561
5	Saw mills.....	6	64,300	158,700	64,600	22,300	¹ 600	64
1	Spring beds.....	12	6,000	25,000	14,000	3,500	.....	10
1	Tool factory.....	12	2,500	3,500	800	1,500	.....	2
2	Turning, wood.....	9	4,100	4,400	1,250	1,500	¹ 21	6
2	Washing machines.....	11	500	5,306	5,300	1,380	¹ 30	6
1	Wind mills.....	9	2,000	13,700	12,000	5,000	.....	10
1	Woodenware.....	12	30,000	125,000	46,500	25,000	¹ 5,000	50
140	Totals.....	.....	\$3,973,925	\$7,385,507	\$4,810,983	\$1,016,728	\$45,998	1,580

¹ One report.² Two reports³ Three reports.⁴ Four reports.⁵ Seven reports.⁶ Eight reports.⁷ Fourteen reports.

CLASSIFIED INDUSTRIES—CONCLUDED.

No. of returns.....	Industries.	Average No. months in operation.....	Total capital employed.....	Value of product for the year.	Cost of materials used.	Amount paid for labor.	Amount paid for interest, rent and taxes.....	Average number of employes.....
PAPER.								
3	Blank books.....	12	\$17,800	\$45,500	\$11,600	\$16,800	.....	38
6	Book bindery.....	12	64,000	78,500	37,000	16,920	² \$644	43
1	Paper box.....	12	1,200	4,000	2,100	1,200	.....	6
1	Paper mill.....	6	50,000	22,500	11,000	6,000	¹ 800	32
18	Printing.....	12	741,400	1,179,112	572,109	395,431	⁵ 67,265	730
1	Printing and engraving.....	12	30,000	45,000	20,000	15,000	.....	26
30	Totals.....	.....	\$904,400	\$1,374,612	\$653,809	\$451,351	\$68,709	875
TEXTILE.								
1	Bags.....	12	\$20,000	\$70,000	\$59,000	\$5,500	¹ \$800	14
28	Clothing.....	12	224,800	839,200	450,050	228,680	⁴ 4,065	582
1	Cotton factory.....	.....	100,000	.....	.....	.....	.....	.....
2	Cotton gins.....	1	1,550	800	125	375	.....	10
1	Flax and excelsior.....	6	8,000	12,000	5,000	3,000	¹ 125	14
2	Hosiery.....	8	16,000	15,000	9,900	2,800	.....	29
2	Tents and awnings.....	10	4,000	23,000	14,000	4,000	.....	7
1	Woolen mill.....	9	8,000	9,000	5,000	1,620	.....	12
38	Totals.....	.....	\$382,350	\$1,019,000	\$543,075	\$245,975	\$4,990	663
LIQUORS, CIGARS, ETC.								
3	Bottling.....	12	\$17,000	\$42,000	\$17,800	\$9,500	.....	12
1	Cider.....	2	500	1,250	700	250	.....	3
39	Cigars.....	12	211,775	549,170	231,158	152,083	⁶ \$4,500	316
9	Soda water, &c.....	8	47,800	57,251	19,552	19,393	² 950	44
1	Tonic and mineral waters.....	8	100,000	50,000	10,000	30,000	¹ 2,000	28
53	Totals.....	.....	\$377,075	\$699,671	\$279,210	\$211,226	\$7,460	403
PATENT MEDICINES, ETC.								
2	Patent medicines.....	12	\$110,000	\$83,000	\$32,000	\$24,000	² \$2,500	31
7	Vinegar.....	12	90,485	106,000	47,343	21,400	² 2,590	46
9	Totals.....	.....	\$200,485	\$189,000	\$79,343	\$45,400	\$5,090	77

¹ One report. ² Two reports. ³ Five reports. ⁴ Six reports. ⁵ Nine reports. ⁶ Ten reports.

The next table gives the aggregates of the foregoing classified tables, showing the total capital, value of product, cost of material, amount paid for labor, amount paid for interest, insurance and taxes, and the average number of employes. The interest and tax column does not give the full amount expended under this head, as a large number of establishments failed to report it, but it is tabulated as far as returned.

<i>Industries.</i>	<i>No. of establishments.....</i>	<i>Total capital employed.....</i>	<i>Value of products for the year.....</i>	<i>Cost of materials used.....</i>	<i>Amount paid for labor.....</i>	<i>Amount paid for interest, rent and taxes.....</i>	<i>Average No. of employes..</i>
Animal.....	43	\$10,577,400	\$16,465,221	\$14,238,243	\$1,885,781	\$62,658	3,854
Leather.....	39	356,000	713,900	424,100	163,433	6,146	244
Mineral.....	14	519,550	2,022,610	1,318,692	417,436	9,000	810
Metal.....	82	2,250,720	3,391,725	1,803,888	878,300	18,412	1,769
Lighting.....	13	1,245,000	587,000	353,528	122,289	13,478	182
Salt and water.....	12	1,892,000	260,000	90,165	83,837	27,890	176
Stone, clay, etc.....	78	2,163,700	1,643,784	475,600	774,815	12,418	1,903
Fruit and saccharine.....	26	1,752,300	1,185,375	738,585	207,336	7,324	1,790
Grain, etc.....	16	588,200	697,500	388,328	114,693	2,970	267
Wood.....	140	3,973,925	7,385,507	4,810,983	1,016,728	45,998	1,580
Paper.....	30	904,400	1,374,612	653,809	451,351	68,708	875
Textile.....	38	382,350	1,019,000	543,075	245,975	4,990	668
Liquors, cigars, etc.....	53	377,075	699,673	279,210	211,226	7,460	403
Patent medicines, etc.....	9	200,485	189,000	79,344	45,400	5,090	77
Totals.....	593	\$27,183,105	\$37,634,907	\$26,197,550	\$6,619,300	.....	14,591

Following will be found a comparison of the number of establishments and capital invested, (including flouring mills,) of all making reports for the years 1886, 1887, and 1888. It will be seen that compared with last year all show an increase, both in the number reporting and the amount of capital invested, except in liquors, medicines, cigars, mineral, and flouring mills. The reason for the decrease in capital represented in flouring mills is given at length in the flouring-mill chapter; and a large smelter failed to report this year, which accounts for the slight shrinkage in mineral. The largest increase is shown in the meat-packing industry, several large packing houses having been erected in Wyandotte county. The stone and clay industry shows a marked increase, as also do the wood-working returns. The others present a healthy growth.

<i>Industries.</i>	1886.		1887.		1888.	
	<i>No. of establishments.....</i>	<i>Capital.</i>	<i>No. of establishments.....</i>	<i>Capital.</i>	<i>No. of establishments.....</i>	<i>Capital.</i>
Wood working.....	106	\$1,256,525	128	\$2,040,200	141	\$3,973,925
Metal working.....	58	1,548,249	60	1,710,000	82	2,250,720
Animal.....	40	4,529,500	38	5,899,850	43	10,577,400
Textile.....	27	262,600	31	293,000	38	382,350
Liquors, medicines, cigars, etc.....	45	637,250	70	621,066	62	577,560
Fruits and saccharine.....	27	975,900	25	1,029,380	26	1,752,300
Leather.....	29	136,550	28	257,900	39	356,000
Mineral.....	8	556,000	11	615,500	14	519,550
Paper.....	9	149,100	15	471,300	30	904,400
Stone and clay.....	48	227,900	66	834,000	78	2,163,700
Grain, etc.....	3	26,500	6	120,000	16	588,200
Lighting.....	6	494,500	10	655,100	13	1,245,000
Salt and water.....	4	213,000	6	885,000	12	1,892,000
Flour mills.....	323	7,379,950	307	7,923,390	241	6,870,300

This table gives the aggregate capital reported by each county, but does not include flouring mills, which have been tabulated and presented separately in the preceding chapter. The table also gives the value of product in each county, cost of material, amount paid for labor, amount paid for interest, rent and taxes, and average number of hands employed so far as reported.

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES, (excluding flouring mills) by counties, for the year ending June 30, 1888.

No. of returns.....	County.	Average number of months in operation.....	Total capital employed.	Value of product for the year.	Cost of materials used.	Amount paid for labor.	Amount paid for interest, rent and taxes.	Average number of hands employed.		
								Men.....	Women.....	Youths.....
4	Allen.....	11.25	\$53,500	\$74,400	\$33,466	\$21,870	.....	57	.....	3
1	Anderson.....	12.00	13,000	20,000	5,000	10,000	.....	25	.....	.....
31	Atchison.....	10.84	938,600	1,260,500	663,300	347,420	\$13,385	499	556	18
30	Bourbon.....	11.30	1,009,000	1,354,822	560,380	451,580	6,700	888	25	16
2	Brown.....	12.00	8,600	16,190	6,800	1,600	600	7	.....	.....
3	Butler.....	4.66	4,700	7,430	2,550	2,910	.....	19	.....	3
1	Chase.....	9.00	30,000	50,000	8,000	32,000	3,000	60	.....	.....
3	Chautauqua.....	4.66	3,550	1,800	625	475	.....	1	10	.....
13	Cherokee.....	8.28	153,675	584,477	364,195	141,320	7,650	267	18	2
2	Clay.....	8.50	10,485	9,000	4,343	2,000	.....	5	.....	.....
4	Cloud.....	10.50	41,000	33,400	15,250	12,325	.....	26	.....	.....
4	Coffey.....	8.50	7,200	15,500	4,200	6,500	.....	20	.....	.....
12	Cowley.....	9.08	108,875	287,000	167,300	55,335	385	115	.....	.....
9	Crawford.....	8.78	300,900	740,463	477,672	177,042	1,771	318	.....	8
11	Davis.....	9.30	71,600	80,967	32,950	27,680	650	48	2	4
1	Decatur.....	4.00	1,000	4,000	500	2,000	.....	9	1	.....
9	Dickinson.....	11.00	125,600	242,000	120,900	83,754	5,682	156	.....	5
1	Doniphan.....	11.00	2,500	50,000	35,000	12,000	.....	3	37	.....
12	Douglas.....	9.62	453,500	512,175	337,205	75,389	6,832	231	303	133
3	Edwards.....	9.00	12,000	21,000	5,300	8,700	.....	38	.....	.....
1	Ellsworth.....	12.00	3,500	30,000	20,000	4,000	.....	8	.....	.....
2	Ford.....	9.00	34,000	11,400	5,400	4,500	1,000	19	.....	2
1	Franklin.....	10.00	30,000	20,000	5,000	9,000	2,200	18	.....	.....
1	Greenwood.....	7.00	500	1,500	300	970	88	3	.....	.....
3	Harper.....	10.33	10,000	13,100	3,520	3,700	.....	10	.....	.....
14	Harvey.....	10.28	109,800	199,115	96,715	56,342	5,520	123	3	1
1	Jackson.....	6.00	3,000	20,000	10,000	3,000	.....	8	.....	.....
1	Jewell.....	10.00	100	5,306	4,300	380	30	3	.....	.....
3	Kingman.....	10.50	43,000	17,400	9,900	5,400	.....	17	.....	.....
4	Labette.....	6.25	5,000	13,250	3,595	2,737	.....	12	1	.....
69	Leavenworth.....	11.00	3,786,400	3,383,817	1,783,056	838,278	57,233	1,391	329	206
2	Lincoln.....	8.50	9,000	5,000	2,200	950	325	5	.....	.....
2	Linn.....	9.00	3,000	6,400	1,650	2,100	.....	8	.....	.....
27	Lyon.....	11.55	154,300	185,950	83,225	65,575	1,599	113	83	1
3	Marion.....	10.00	47,000	51,462	41,000	14,598	500	43	.....	.....
10	Marshall.....	10.90	60,900	192,326	54,395	80,405	1,020	127	18	2
4	McP. erson.....	5.25	20,700	21,500	5,560	6,702	.....	40	.....	2
5	Miami.....	9.60	24,600	32,900	10,655	11,300	300	35	.....	3
3	Mitchell.....	11.33	7,000	12,347	4,927	3,606	121	9	.....	1
6	Montgomery.....	10.66	84,900	33,000	17,088	8,911	.....	27	5	3
7	Morris.....	8.71	18,700	37,373	21,668	11,160	251	30	.....	.....
6	Nemaha.....	9.17	24,700	79,245	58,969	7,100	413	27	.....	.....
4	Neosho.....	9.50	8,070	10,700	4,500	3,800	141	14	.....	.....
6	Osage.....	7.00	4,900	9,100	1,860	4,550	10	19	3	.....
5	Ottawa.....	7.00	20,000	24,670	14,940	5,745	505	18	1	.....
4	Pawnee.....	12.00	19,000	49,300	18,300	12,700	400	29	.....	.....
2	Phillips.....	9.50	2,500	9,500	3,600	5,008	.....	12	.....	.....
3	Pottawatomie.....	6.83	14,500	9,947	6,678	1,572	.....	8	.....	.....
2	Rawlins.....	7.00	700	2,300	1,200	850	.....	5	1	.....
4	Reno.....	3.00	181,200	8,000	900	1,200	.....	78	.....	.....
3	Riley.....	11.33	86,000	70,200	16,580	42,000	.....	73	.....	.....
1	Rooks.....	6.00	4,000	8,190	1,625	2,895	275	24	.....	.....
15	Saline.....	10.00	144,300	186,420	79,100	57,360	.....	165	8	.....
55	Sedgwick.....	11.60	3,342,350	6,448,120	4,340,393	732,492	44,297	1,324	54	58
84	Shawnee.....	11.27	2,903,000	2,391,288	1,160,693	729,537	78,693	1,321	142	49
1	Stafford.....	2.00	800	1,300	700	350	.....	7	.....	.....
13	Sumner.....	11.23	261,800	157,200	90,190	36,100	1,130	87	8	1
4	Wabunsee.....	7.50	13,000	33,246	24,700	3,790	250	12	.....	.....
3	Washington.....	12.00	1,900	3,600	2,100	1,100	8	6	.....	.....
3	Woodson.....	9.00	2,500	5,240	2,600	2,000	.....	9	.....	.....
47	Wyandotte.....	10.74	12,478,500	18,404,898	14,943,811	3,056,626	99,120	4,250	253	413
590	Totals.....	.....	\$27,218,405	\$38,233,734	\$25,803,530	\$6,617,920	\$342,742	12,329	1,866	934

REMARKS OF EMPLOYERS.

BRICK, TILE, POTTERIES, ETC.

A Butler county brick yard employs seven hands; the proprietor says: "Five of my men are Christians, and all favor prohibition. Six of the seven are Republicans, and are saving money by their daily labor."

A Coffey county tile manufacturer says: "Owing to the poor crops, I have run my mill very little during the past year. Will start this fall if the rains come."

Dickinson County: A pottery manager writes: "Our works are not yet completed; we are putting in machinery for the manufacture of stone-ware. We tested the quality of our clay for this work during the spring, and found it excellent."

Ford County: A brickmaker says: "I have not made any brick this year; cause, lack of demand. I made over 2,000,000 in 1887; sold 300,000 this summer that I made last summer; shall burn one kiln this fall."

Greenwood County—Brickmaker: This year has been the best for the sale of brick, in this town, I have ever had. We are putting in a system of water works. Our corn crop will be good, and the business outlook very encouraging. We have good schools, and a law-and-order-loving people.

Leavenworth County—Drain-tile and Brick: This factory is situated on my farm, near the city, and has an inexhaustible supply of very fine clay, suitable for drain-tile, terra cotta, pressed brick, and pottery. Machinery all new and in good shape. A coming railroad is surveyed through my farm, close to the works. This correspondent will sell or lease.

Osage County—Tile and Brick: Our business has been poor for the past two years; we have made more tile than brick. Sale for tile very light, and will stay so until we get rain, better crops, and a change in the National administration of affairs. I have invented a machine to make sidewalk brick; can put any design on the face and edge; they make a very durable and handsome walk.

Rooks County—Brick: Have filled this report to the best of my ability; will try and do better next year.

Sedgwick County—Pressed Brick: We were late in getting to work last season, as our plant was not ready until October; our labor account was not kept in a way to enable us to tell the cost of manufacturing, as we were working a force of men on buildings and improvements until the latter part of June.

Sedgwick County—Brick-making and Contracting: Last year we were crowded beyond our capacity; this year it is somewhat quiet, but we are handling a fair share of work. Regarding the condition of the laboring classes in this vicinity, although times are inclined to be dull, I hear no complaints, and all seem to be thriving, with the exception of the chronic growlers, who are always at it, good times or bad. Our laboring class are very intelligent, and are above the average, compared with other places where I have lived. An illiterate man is a scarce article; all seem to enjoy life, and society is good. The sanitary condition is very good; and our native-born population rapidly on the increase, from *natural* causes.

Shawnee County—Artificial Stone: Our business was started in 1887, so we are unable to give you full statistics.

Wyandotte County—Terra Cotta and Brick: We haven't got our plant perfected, and have not yet begun the manufacture of terra cotta; have thus far confined ourselves to brick.

Wyandotte County—Clay: We are engaged in digging, drying and shipping brick clay to Kansas City, where the brick is manufactured.

BROOM FACTORIES.

Douglas County: Broom-making, like other branches of manufacture, is centering in large establishments. Machinery is superseding muscle, with a fair prospect of success. Hundreds of blind and purblind men have earned their living at broom-making for the last forty years. Many are doing so to-day, but machinery will soon render this impossible. I have made brooms here for twenty years. I am not well enough posted to state what efforts are being made to find some other trade to employ the blind in place of broom-making. It is a serious matter for this unfortunate class of our people.

Leavenworth County: I have, in connection with my broom factory, just put in operation a steam mill, employing 5 or 6 hands, for the manufacture of "cellaluse" mattresses, from the feathery, light product of corn-chaff—the refuse of elevators. The process is covered by five patents, and bids fair to become a prominent industry. We propose to enlarge our plant.

Mitchell County: The broom business in western Kansas is a dead letter, owing to overdone business. Your report does not contain over one quarter of the small broom factories in this part of the State, and those who do report to you make too big figures about their business. They do not do the business or make the profits they tell you they are making. This report I now send you is true in every particular. Nothing but the best report can be made as to the educational, social and sanitary condition of this county.

Washington County: Our business is poor; cause—an over-production of inferior goods, manufactured by unskilled workmen.

CARRIAGE AND WAGON MAKING AND BLACKSMITHING.

The proprietor of a wagon and blacksmith shop in Cloud county says: "We have but little to report. The combination of capital, the employment of machinery, and cheap, unskilled labor, are fast breaking down small institutions like ours; and we have to yield, not from choice, but from necessity. There is no branch of industry in the State that is becoming more demoralized than blacksmithing; even now it is a difficult matter to find a proficient workman. There is nothing in our business to invite the young man to learn the trade. Convict labor stares him in the face; combination of capital with machine-work run by unskilled labor; cheap hands who know but little more about what they are making than does the machine they are running. We have no system. A blacksmith who can do general work is difficult to find. We need a law governing apprenticeship; not to simply learn how to make a part of a buggy or a part of a plow, but to learn to do all parts of the work. We need reform all along the line; good competent workmen at good wages."

Harvey County: As we do a great deal of repairing, we find it impossible to answer your questions regarding amount of product and single unit of product.

Kingman County—Plows: I have only recently become connected with this establishment, and cannot give you full details. The works have been idle since January 1, 1888.

Lyon County—Blacksmith and Wagon Shop: Business has been unusually dull this

year, and our shop has been running on the least possible expense. Our farming interests have been in an unsettled condition owing to bad crops; but we have good crops this year, and confidently look forward to an increase of business. I thank you for the copy of your report sent me last year; I find it a useful and interesting book.

Lyon County—Carriage Factory: Business is moderately fair, but owing to the large number of cheap buggies shipped here from the East, the buggy trade is slow. Spring wagons and such are in fair demand, and can be manufactured here at prices to compete with Eastern work. Our people seem to prefer cheap Eastern work to good work done at home; durability is not considered; the low-priced article carries the day. We have prospects for very fair crops, and business is improving.

Miami County—Handle Works: I bought these works last January; have been running them only a part of the time; business for the last two years very light.

Neosho County—Carriages and Blacksmith: Our hickory is good, and I use our native lumber for repairs. If we don't have rain soon, this will be a dull season for the carriage business. In 1884 I built 37 vehicles of different kinds, and sold over \$5,000 worth of my work; the trade has been falling off each year since. I have in stock carriages that I built in 1886.

Sedgwick County—Carriages: I had to quit business; times got too hard, and I was closed out.

Shawnee County—Carriages: Six married men, including the firm, with families averaging 3.5; four own their homes.

Sumner County—Coöperative Carriage and Wagon Manufactory: Business is very dull. Money is scarce and growing scarcer all the time. Crops here were a failure last year, and the sale of vehicles has about ceased. The working-people in this section of the State are in a very bad condition. There is little work doing, and very little money to pay for what is doing.

CIGAR MANUFACTURERS.

A Cowley county cigar-maker says he has only recently begun business; works only two hands, but thinks his business will increase.

Lyon County: The cigar industry has fallen off largely since the enforcement of the prohibition law. Prior to its passage I employed ten men. Another drawback to the cigar industry in Kansas is that the consumer does not insist upon having home-made cigars. He asks no questions, and smokes the filthy Eastern tenement-house trash which the dealer shoves on his customers, because he can make a larger profit. If every smoker would refuse to buy any cigars not made in his own town local trade would revive, and people would get healthy cigars and help the prosperity of their town, for you can't help one industry without indirectly helping all others.

COFFEE ROASTING, SPICE MILL, ETC.

Sedgwick County: We pay our women only 50 cents per day; this is small pay, but our work is light and clean, and many girls who will not work out and dislike home work are glad to do this kind of work, as they board at home and the money they earn helps to clothe them.

CREAMERIES, ETC.

A cheese-maker in Allen county says: "I am running a dairy farm, keep my own cows, raise most of my own food, do a good deal of my own work, have a good deal of farm produce, and the sales are so interwoven and mixed up that it is diffi-

cult for me to separate them. I have been quite successful in making cheese; have been in the business fifteen years, and my cheese now commands the highest price in the market and finds ready sale in the nearest towns." This man made 12,000 pounds of cheese during the year.

Dickinson County: A butter factory employs seven hands, and turns out 900 pounds of butter daily.

Nemaha County—Butter, Eggs, etc.: The condition of the laboring people in this vicinity is good socially. They are healthy, as a rule, and have superior educational advantages, black as well as white. Their financial condition is generally good, and nearly all appear to be accumulating something; a large per cent. own their homes.

Saline County—Butter and Cheese: The price of milk varies. It costs us just as much to make 300 pounds of butter as it does to make 900 pounds, barring the milk, tubs, salt, etc.; the labor is the same.

ELECTRIC LIGHT.

Sedgwick County—Electric Light: In our business it requires 365 days in the year, and our figures are based upon this requirement. Our employes are contented and well-to-do, and the close attention to business required by the nature of the work, leads them on to a desire to learn more of the great problem of electricity. In fact all who are engaged in it express themselves as unwilling to go into any other line of business. They all seem to recognize that it is the coming industry of the age, and to have a thorough knowledge of it insures a safe and good livelihood.

FLAGSTONES AND STONE QUARRIES.

A Bourbon county firm says: "The answers to the questions contained in the inclosed list are as near as we can give. We have failed to keep an accurate record. If this is not sufficient we will cheerfully give any further information within our power." Another firm in the same county says: "While an increase of wages ranging from 3 to 5 per cent. is reported, it is not impossible that a decrease will follow. The lack of money in this section of country, together with increasing competition through the use of other products in sidewalk construction, will undoubtedly have an effect in decreasing the cost of production."

A Cowley county stone-quarry man says he sold out during the year, and removed to Los Pinos county, Colorado, where he finds stone of excellent quality, but a lack of capital to work; work very dull and wages low.

Riley County—Stone Quarry and Manufacturing Stone: We have employed labor largely for ten years, and never had a strike and no trade unions about us. Our men are all prosperous, and own their homes.

FOUNDRY, STOVES, AND MACHINE SHOPS.

The proprietor of a Clay county foundry and machine shop writes as follows: "The failure of crops in 1887 stagnated our business. We hope to make a better showing next year."

A Cloud county report says: "The amount shown in our report as paid to labor is out of proportion to the year's product, for the reason that we had just commenced business a year ago, and during the year have constructed a great deal of our own machinery in order to increase our facilities for manufacturing; we have also made a good many patterns."

From Cowley county we get the following: "The new factories in course of erection last winter gave us good fall trade. This spring and summer so far money

matters have been very close, and although crops of all kinds are excellent, farmers and threshing men are having only such work done as is absolutely necessary, which makes our work on farm machinery less than at this time last year, but we confidently expect to be benefited next year more than we shall be this year by the crops now being harvested."

Leavenworth County—Stove Foundry: Our business increased only about \$10,000 last year. No other change of sufficient note to justify a change from last year's figures.

Leavenworth County—Stove Foundry: Business has been very light for the past twelve months, and trade this fall is slower than it has been in any year since we started business. Still, we think the prospects are good for a late fall trade. The short crops in Kansas for the past three years have affected our trade more than any other cause during the present year.

Marion County—Foundry and Repair Shops, and Sad-iron Factory: Our shops were built last year, and we commenced running about October 1st; have incurred heavy expense in getting our machinery in running order, and experimenting on machinery for the manufacture of a gasoline self-heating sad-iron. This accounts for our heavy outlay and light income.

Neosho County—Foundry and Repairs: When I need help in casting, I give one-half the proceeds to labor in lieu of wages; I keep no book.

Reno County—Foundry: I do a repair business, and make a specialty of sash-weights. It is hard to compete with Eastern work; sash-weights are laid down here at \$1.52 per 100 pounds, and other castings in proportion. We can barely meet these figures and live. Work is slack here, and laborers plenty; wages have fallen in the building trades. Free advertising has brought too many workingmen here. I think one of the greatest evils workingmen have to contend with is this newspaper booming of towns for land-speculative purposes.

Sedgwick County—Pocket Type-Writer: Moved their factory last year to New York city.

Sedgwick County—Architectural Iron Foundry: We commenced business April 25, 1887, and have now over \$80,000 worth of contracts not commenced. Our business has increased right along.

Sedgwick County—Novelty Works: Our men work on a percentage, and it is a difficult matter to arrive at their exact wages, but we give them as nearly correct as we can."

Wyandotte County—Radiator and Iron Foundry: We were incorporated in October, 1887; commenced business in March, 1888. Our buildings cover two acres.

FRUIT AND VEGETABLE CANNING FACTORIES, ETC.

Labette County—Growers, Shippers, and Cannors of Vegetables: We have ten acres of ground in vegetables. Have employed as high as 23 hands; employ 4 regularly. Pay men 10 cents per hour, boys 5 to 7½ cents. Our output will consist chiefly of prepared horse-radish, which won't be ready to ship before winter.

Leavenworth County—Fruit and Vegetable Canning Factory: It is difficult to make an accurate report, as your blank terminates July 1, right in the middle of our busy season; but I suppose you can't select a time to suit all, so I have given you our figures as nearly correct as I possibly could, under the circumstances, and don't think they are a great deal out of the way.

FURNITURE, ETC.

Crawford County: Educational facilities are good; five school-houses; two are of brick, the last one costing \$10,000. We do not seem to feel tight times here as they do in other places, as ours is a mining and manufacturing town. We mine coal and smelt lead and zinc quite extensively, which gives employment to a good many men and keeps money in circulation. The society is good, people generally orderly and gradually growing better. The laws are being enforced more strictly and the people quietly submitting. The health of this community is good, and no epidemic has prevailed for five years.

Leavenworth County—Furniture: Our company has just started. We employ convict labor. It will be some time before we can make you an intelligent statement. Next year, however, we hope to be able to do so.

Lyon County—Furniture and Repairing: Our line of work has been light the past season, but the outlook for the future is good.

Bourbon County: I think that by putting all the men on piece work, it has increased their wages. Bench men under the wage system seldom earned to exceed \$2 per day. Now, in 9 hours, they earn from \$2.50 to \$2.75; while finishers who earned only \$1, now earn as much as \$2, and others, earning \$2, now earn as high as \$3.

Bourbon County: A furniture manufactory employed from 20 to 24 men. Average monthly earnings \$50; paid skilled labor from \$2.50 to \$2.75 per day; unskilled \$1.25; worked 10 hours in summer, 9 in winter; paid every Saturday night. Wages had advanced about 10 per cent. In cost of manufacture, labor represented about 60 per cent.; five accidents occurred during the year; none serious; mostly fingers clipped on jointers and shapers.

HARNESS AND SADDLES.

A Brown county saddler says: "A hone strap can be made in ten minutes; a team harness, such as is most used by farmers, will take a skilled man three days to make, and the most expensive harness (double) carriage, that I have made, took four weeks; finest single buggy harness three weeks. We make everything from a hone strap to a fine carriage harness."

A Chase county saddler and shoe-maker says: "You will see by this report that I do but a small business; but I have, as you requested, made my report, and hope to make a better showing next time."

Lincoln County—Harness: "Owing to the crop failure last year, our business has been very light this year."

Mitchell County—Harness and Saddles: "I give steady employment to one man at \$10 per week, and have one apprentice to whom I pay \$200 per year."

Sedgwick County—Harness and Saddles: Business fair. We give you the figures of our business as nearly correct as we are able. We have never kept as close an account of the different items as we should have done.

HAY PRESSES AND TIE-MAKING.

Crawford County: Only been in business two years; works from 9 to 16 hands and made 75 hay presses and 100 tie-makers during the year.

Wyandotte County—Hay Stackers, Rakes, Rollers, etc.: We are employing a good class of men, mostly Americans, two of them are colored, and we find them all steady and contented. We think the time has come to push manufactures, and we hope to double our output next year. Our trade this year is running ahead of our expecta-

tions, and we are now running nights to keep up. This firm employs from 30 to 50 men.

HOSIERY.

A Bourbon county manufacturer says: "We are only running on special orders; don't intend to manufacture anything ahead until the tariff question is settled. An experienced woman will earn from 90 cents to \$1 a day in my factory, and beginners less; only two of my girls work by the day, and I pay them 75 cents. In Eastern factories 15 cents per dozen is paid for the same work I pay 17 cents for, and there broken needles are charged to the worker, while I have to stand the breakage. In the East they pay 3 cents for finishing, while I pay 5 cents. Experience has taught me that the East is the place to get cheap labor, and that alone accounts for the West not having more factories of this kind."

LEAD AND ZINC.

The superintendent of a lead and zinc company in Cherokee county says: "Mineral lands here are laid off into lots 200 feet square, and miners contract to work this land; and if they strike ore they pay a royalty of from 10 to 20 per cent. for zinc, and from \$25 to \$28 per 1,000 pounds of lead, when lead is worth 7 cents per pound in St. Louis. I will say that all we lack here is capital, for we have the minerals beyond a doubt."

The proprietor of a lead and zinc reduction works in the same county says: "We have been idle for the past four months, owing to the low price of ore; buyers are waiting to see how the tariff goes. If the tariff is removed from lead and zinc, we will have to stay shut down."

Another reduction works, same county, is also idle from the same cause, and writes a similar letter.

From the same county, a man engaged in zinc mining, employing from six to eight men, writes as follows: "The working class here is pretty well fixed; all work when the mines run, and that is pretty nearly all the time; so they live well. The town is prospering; several large brick buildings have been erected during the last few months, and the farmers have a good market here for their surplus produce."

The proprietor of a zinc crusher, same county, says: "The crushing industry has been much better this year than it was last. All kinds of mining and crushing are better. Quite a number of brick and concrete buildings have been erected; crops in this section are very good; apples fine; peaches light, but of good quality; all kinds of fruit abundant."

MEAT PACKING HOUSES.

Ottawa county pork-packer: Trade dull; wheat good, oats fair; rye good; corn very good; fat hogs scarce; cattle doing well; very few stock hogs in the county. Schools good; poor well provided for; health generally good. Our county is in a flourishing condition. I have lived here 18 years.

MERCHANT TAILOR.

Leavenworth County: A merchant tailor thinks the list of manufactories published in the last report of this Bureau very incomplete; thinks not more than one-tenth of the industries of the State are represented. In his report for this year this gentleman "don't know" as to what his product was, stated in units of manufacture, and don't know the cost of materials he used, as he "don't keep book;" he also don't know "what were the average wages he paid for labor," in fact, his lack of knowledge as to the details of his own business seems very conspicuous. We have compared the reports received from his county with the list of establishments re-

ported by the county clerk to the State Board of Agriculture, and find that our last year's report contained them all. We venture to remark in this connection that, out of all the reports received by this Bureau from Leavenworth county, we find, after a careful examination, his to be most deficient and most imperfectly filled out.

Shawnee County: We have done more business than we did last year, but collections are closer. We find a better demand for fine work.

PRESERVING AND PICKLING FRUITS AND VEGETABLES.

Shawnee County: Our help are all well pleased with the season's business, and with the prospects for future business. They are all well and happy.

PRINTING, BOOKBINDING, ETC.

Leavenworth County—Bookbinding and Paper-ruling: Most of my work is from printers and stationers, so my stock account is light. I employ girls in my business; find them more reliable than boys. Trade is good, but prices are low. I think the tendency of the times is to concentrate most kinds of business, thus freeing out small concerns. I don't know as this can be avoided, but it is the patronage and encouragement of home enterprises, even although started on a small scale, that builds up new towns. I think it is a discouraging sign when we see men who have met with loss and lack of patronage in the new towns, have to quit and drift back to the cities. I think that in many cases it takes the heart out of a young mechanic, his ambition is gone, he falls back into the ranks of wage-workers, gets shiftless and too often dissipated. I know of such cases.

Shawnee County: This is a twenty-page weekly agricultural paper, established in 1863, and has a large circulation. We give you list of the management on inclosed sheet.

SASH DOORS AND BLINDS.

An Atchison county firm says: "Our manufacture is somewhat outside of regular work, hence we find it difficult to give cost of labor per unit of product, or to state the amount of product in units of manufacture."

A proprietor of a planing mill and contractor and builder in Davis county says: "Business decreased during the latter half of the year on account of poor crops and scarcity of money. Collections were slow. I think a law fixing the thickness of lumber shipped into the State is needed. One-inch stuff is surfaced down to three-quarters of an inch, and the thicker kinds in proportion. Consequently we frequently have to buy lumber of nominally thicker dimensions in order to get what our contract calls for. Lumber should measure fully as thick as it is sold and charged for. To pay for one-inch lumber and only get three-quarter inch is a fraud."

Dickinson County: Our local financial condition is good, considering the failure of the crops for the last two years. Educational facilities excellent.

Harvey County: I cannot tell the amount of capital employed or value of total product, as we did not keep a full account of these items.

Jewell County—Washing Machines and Contractor of Buildings: There are no manufacturers here, except builders of houses. We have about twenty carpenters, all men of some education and good citizens, but those who have families make very little more than a living; only four own their homes and get work about two-thirds of the year. We have no labor union. Sanitary condition good. No labor disturbances; in fact our mechanics are good average citizens.

Ottawa County—Contractor and Builder: Mechanics have not been very busy here during the past year. Our local workmen have in great part been idle or working in some other city. I have a farm, however, which has yielded a splendid crop this season.

Wyandotte County: Under the present management, we have operated so short a time as to prevent us from answering intelligibly regarding the volume of a year's business.

SODA, MINERAL WATER, CIDER, VINEGAR, ETC.

A Cloud county soda-water manufacturer says: "Business has been very poor thus far this season, owing to bad crops last year (1887). We are doing 60 per cent. less business than in former years."

Davis County: Owing to scarcity of money and extremely short season, my business this year has not been half as good as it was last."

Douglas County: A cider, soda and vinegar factory reports that owing to the failure of the apple crop in 1887, their output was light this year.

Leavenworth County—Tonic and Mineral Water: Owing to the decrease in our trade the last two seasons, we have about come to the conclusion to close out our business. Considering the amount of capital we have invested, the profits are not sufficient to encourage us to continue for a very much longer period.

SORGHUM SUGAR AND SYRUPS.

Leavenworth County—Sorghum: I did an exclusively custom business last year, giving the grower one-half of the manufactured product. I have been engaged in the business of sorghum-making since 1864. I have never tried to make sugar, although I have been satisfied for the past ten years that it could be successfully made. Last year was a splendid year for the granulation of sugar. Nearly all of my syrup commenced to grain before leaving the evaporator; this, in my opinion, was due to the dry weather of last summer, and no doubt exists in my mind that the great success at Fort Scott was more due to the season than to the new process. The great drawback to sorghum is the chinch-bugs; this season my crop will be damaged by these pests at least 30 per cent. If farmers could be induced to quit sowing wheat, Mr. Chinch-bug would soon be a thing of the past.

Ottawa County—Sorghum Manufacturer: The sorghum crop of 1887 in this section was much injured by drouth, and the product lessened in both quantity and quality. Educational facilities here are good, teachers' wages \$35 to \$50 per month. Financially our people are generally rather straightened, caused by failure of crops in 1887, but the abundant wheat crop now being marketed will help them out. Sanitary condition good for the heated season.

STREET-PAVING.

Shawnee County: This company confines itself to street-paving with Trinidad sheet asphalt, and its operations are carried on in twenty-three or twenty-four cities in the United States. The business is managed entirely by the Washington and New York offices, and there is no distribution of capital for the different cities. Funds are furnished from time to time as required by the main office. We do business in only two cities in Kansas, viz.: Topeka and Kansas City, Kas. Our business is carried on only during the spring, summer and fall months, and varies according to the weather.

TINNERS, ETC.

Nemaha County—Tinner and Maker of Calf-Weaners: We work irregularly at the calf-weaner business. My sons are the only regular workmen I employ. I have done the best I could to separate this part of the business from the rest, and as you see, we made not quite 2,000 dozen during the year.

Shawnee County—Tinner and Hardware Dealer: My tin and sheet-iron trade is run in connection with my hardware business, so I can only make estimates in my answers to your questions.

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES, including flouring mills, showing relative standing, by counties, in capital invested; also value of product, cost of material used, and average number of employes, for year ending June 30, 1888.

Number	Counties.	Number of estab- lishments.....	Total capital employed.	Value of product for the year.	Cost of materials used.	Average number of hands employed.		
						Men.....	Women..	Youths..
1...	Wyandotte.....	49	\$12,555,500 00	\$18,491,238 90	\$15,006,811 06	4,257	253	413
2...	Leavenworth.....	78	4,125,400 00	⁵ 3,924,507 85	³ 2,656,356 10	1,469	329	206
3...	Shawnee.....	92	3,435,000 00	¹ 3,631,288 00	¹ 2,137,442 93	¹ 1,430	142	49
4...	Sedgwick.....	57	3,407,350 00	6,795,920 00	4,587,393 00	1,337	54	58
5...	Atchison.....	36	1,317,600 00	2,107,317 92	1,293,525 50	567	556	18
6...	Bourbon.....	32	1,068,000 00	1,463,822 64	626,380 00	892	25	16
7...	Douglas.....	17	713,500 00	³ 852,175 00	³ 622,205 00	268	303	133
8...	Saline.....	22	613,300 00	¹ 674,419 83	457,300 00	216	8	.....
9...	Dickinson.....	20	463,600 00	⁵ 443,633 00	432,655 00	204	.....	5
10...	Cowley.....	18	431,875 00	² 905,550 00	¹ 690,750 00	¹ 173	.....	.....
11...	Sumner.....	18	397,300 00	² 705,980 00	² 450,940 00	114	8	1
12...	Crawford.....	17	396,100 00	⁵ 823,840 08	³ 575,572 90	¹ 347	.....	8
13...	Marshall.....	14	335,900 00	² 362,763 00	¹ 211,445 00	149	18	2
14...	Harvey.....	21	293,300 00	¹ 514,115 00	¹ 342,415 00	² 153	3	1
15...	Reno.....	7	245,700 00	² 57,273 75	³ 50,950 00	² 31	.....	.....
16...	Lyon.....	29	229,300 00	² 185,950 00	² 83,225 00	83	1	.....
17...	Labette.....	13	220,000 00	⁵ 436,930 00	⁴ 383,094 00	⁴ 59	1	.....
18...	Cherokee.....	20	216,175 00	³ 694,811 00	¹ 439,045 00	295	18	2
19...	Montgomery.....	11	194,900 00	² 140,700 00	183,883 00	49	5	3
20...	Allen.....	7	151,500 00	322,805 00	238,416 66	78	.....	3
21...	Riley.....	6	160,000 00	¹ 120,200 00	¹ 62,730 00	84	.....	.....
22...	Mitchell.....	7	147,000 00	³ 132,347 38	² 157,727 65	31	.....	1
23...	Jefferson.....	5	132,000 00	² 109,379 96	¹ 121,205 16	20	.....	.....
24...	Barton.....	3	130,000 00	333,800 00	235,000 00	31	.....	.....
25...	Pottawatomie.....	7	119,000 00	² 30,302 00	¹ 63,953 00	24	.....	.....
26...	McPherson.....	8	113,200 00	¹ 153,500 00	¹ 97,645 00	25	.....	.....
27...	Clay.....	5	103,485 00	¹ 86,000 00	116,268 00	23	.....	.....
28...	Cloud.....	6	101,000 00	85,700 00	52,200 00	35	.....	.....
29...	Ellsworth.....	4	100,500 00	² 43,400 00	² 40,400 00	26	.....	2
30...	Ellis.....	5	100,000 00	² 251,500 00	² 163,250 00	18	.....	.....
31...	Davis.....	13	99,100 00	² 80,967 00	² 32,950 00	49	2	4
32...	Franklin.....	3	97,000 00	² 21,000 00	² 5,000 00	18	.....	.....
33...	Marion.....	5	95,000 00	126,361 00	103,500 00	53	.....	.....
34...	Butler.....	8	89,700 00	174,710 65	126,857 85	38	.....	3
35...	Doniphan.....	7	89,500 00	616,075 00	427,805 00	250	303	133
36...	Miami.....	7	84,600 00	² 32,900 00	10,655 00	35	.....	3
37...	Lincoln.....	5	82,000 00	² 81,400 00	92,350 00	16	.....	.....
38...	Pawnee.....	6	79,000 00	149,300 00	99,300 00	33	.....	.....
39...	Nemaha.....	8	77,200 00	¹ 114,445 30	85,289 50	38	.....	.....
40...	Osage.....	9	72,900 00	² 94,100 00	² 61,860 00	² 26	3	.....
41...	Wabaunsee.....	7	66,000 00	² 58,246 35	² 44,200 00	² 17	.....	.....
42...	Kingman.....	4	63,000 00	49,400 00	34,900 00	23	.....	.....
43...	Smith.....	5	60,600 00	² 18,000 00	² 19,950 00	² 6	.....	.....
44...	Ottawa.....	10	56,300 00	³ 118,670 00	³ 93,440 00	¹ 31	.....	1

¹ One not reporting.² Two not reporting.³ Three not reporting.⁴ Four not reporting.⁵ Five not reporting.

TABLE OF MANUFACTORIES AND OTHER INDUSTRIES, including flouring mills, showing relative standing, by counties, in capital invested; also value of product, cost of material used, and average number of employes, for year ending June 30, 1888.

Number.....	Counties.	Number of establishments.....	Total capital employed.	Value of product for the year.	Cost of materials used.	Average number of hands employed.		
						Men.....	Women..	Youths..
45...	Johnson	2	\$55,000 00	\$64,000 00	\$54,430 00	9	.....	.....
46...	Edwards	4	52,000 00	¹ 21,000 00	¹ 5,300 00	38	.....	.....
47...	Ford.....	3	52,000 00	¹ 11,400 00	¹ 5,400 00	19	.....	2
48...	Harper.....	4	50,000 00	109,500 00	95,920 00	19	.....	.....
49...	Washington.....	7	49,900 00	³ 18,600 00	² 24,600 00	¹ 12	.....	.....
50...	Russell.....	2	49,000 00	¹ 81,500 00	¹ 70,000 00	12	.....	.....
51...	Rice	1	48,000 00	48,030 00	33,900 00	8	.....	.....
52...	Linn.....	4	48,000 00	¹ 14,400 00	105,800 00	25	.....	.....
53...	Pratt	1	46,000 00	59,500 00	40,000 00	8	.....	.....
54...	Brown.....	4	45,600 00	¹ 28,590 00	¹ 14,000 00	13	.....	.....
55...	Chase	2	45,000 00	¹ 50,000 00	¹ 8,000 00	62	.....	.....
56...	Neosho.....	8	43,400 00	55,400 00	¹ 40,700 00	³ 19	.....	.....
57...	Phillips.....	6	38,500 00	¹ 29,400 00	¹ 22,650 00	¹ 17	.....	.....
58...	Anderson.....	3	33,000 00	¹ 20,000 00	¹ 10,146 00	31	.....	.....
59...	Wilson.....	3	33,000 00	² 8,000 00	¹ 48,300 00	¹ 6	.....	.....
60...	Woodson.....	5	29,500 00	¹ 39,740 00	¹ 24,600 00	13	.....	.....
61...	Coffey.....	6	26,700 00	² 15,500 00	² 4,200 00	24	.....	.....
62...	Rawlins.....	4	25,700 00	¹ 31,100 00	¹ 17,200 00	10	1	.....
63...	Osborne.....	1	25,000 00	46,000 00	36,000 00	6	.....	.....
64...	Norton.....	5	25,000 00	¹ 44,700 00	¹ 36,200 00	³ 5	.....	.....
65...	Jackson.....	2	23,000 00	¹ 20,000 00	34,300 00	11	.....	.....
66...	Republic.....	1	20,000 00	5,108 00	4,302 02	3	.....	.....
67...	Morris.....	7	18,700 00	79,245 30	58,969 50	27	.....	.....
68...	Rooks.....	2	16,000 00	16,190 00	21,625 00	28	.....	.....
69...	Greenwood.....	2	15,500 00	25,500 00	18,300 00	5	.....	.....
70...	Chautauqua.....	6	15,350 00	¹ 54,300 00	¹ 32,125 00	¹ 12	10	.....
71...	Barber.....	1	15,000 00	15,000 00	11,270 00	31	.....	.....
72...	Decatur.....	3	6,400 00	² 4,000 00	² 500 00	11	1	.....
73...	Stafford.....	1	800 00	1,300 00	700 00	7	.....	.....
74...	Jewell.....	1	100 00	5,306 00	4,300 00	3	.....	.....
Total.....			\$34,085,535 00	\$47,647,554 61	\$34,721,983 83	13,675	2,044	1,067

¹ One not reporting,² Two not reporting.³ Three not reporting.

PART 5

COAL OPERATORS.

In the second report of this Bureau we devoted considerable space to the coal-mining industry, after making as thorough an examination of the conditions prevailing in the several coal districts as the means at our command would permit. In our last report we gave this subject less prominence, and we have not deemed it necessary to go extensively into details this year, as there are other industries which seem equally to demand our attention. Two years ago we placed the number of bushels of coal mined in the State during the year at 30,000,000, 50 per cent. of which was dug in Crawford and Cherokee counties, 33 per cent. in Osage, 10 per cent in Leavenworth, and the remainder scattered over the rest of the State, produced by small local mines. This estimate was based largely upon the report of the State Inspector of Mines.

Hon. G. W. Findlay, State Mine Inspector, in his report for the year ending Dec. 31, 1887, places the coal output of the State for that year at 39,251,985 bushels, an increase over 1885 of about 25 per cent. Mr. Findlay estimates that in 1887, 4,728 miners were employed, and 870 day-laborers, a total of 5,598, against 3,597 miners and 578 laborers in 1885; an increase of 1,131 miners and 192 laborers. Mr. Findlay further says: "A number of small mines were abandoned in 1887, and a few of the larger ones worked out, yet there were so many new mines opened that the number in operation at the close of 1887 was about the same as at the beginning of the year." Mr. Findlay goes on to say:

"The almost total absence of strikes during the past year was very gratifying to the operators and miners alike. There were only two or three worth mentioning, among them being those at Leavenworth and Weir City, spoken of in the body of the report.

"The accident list, while larger than it is likely to be hereafter, has not increased in proportion to the increase in the number of miners. No deaths occurred by reason of poisonous gases, those accidents resulting fatally having been caused by explosions, the falling of rock or slate from defective roofs, and falling down shafts.

"There were but few complaints received from the miners during the year, and such grievances as were complained of were in most cases immediately remedied by the operators, the majority of them evincing an earnest desire to take every pre-

caution necessary for the health and safety of the miners, and to comply to the limit of their power with suggestions tending to that end.

"While there are many topics connected with mining that demand legislation, I shall only allude to a few of them now, as there will be another report issued while the Legislature is in session. A law should be enacted requiring miners to use copper tamping-bars and needles, instead of those composed of iron; also a law regulating the distance that rooms can be driven in advance of the last break-through before another one is made; also a law fixing the size of openings in screen bars. The law of 1885, limiting the amount of powder to be taken into the mine by the miners, should be amended, as it works an injustice to them in its present state."

Referring to the chief coal fields of the State, Mr. Findlay finds that for the year 1887, Crawford and Cherokee counties produced 20,172,778 bushels mined and stripped, Osage county 10,440,189, and Leavenworth (including the penitentiary shaft) 4,352,018. Reckoned in percentages, this gives Crawford and Cherokee counties about 51 per cent., Osage county 26 per cent., and Leavenworth 11 per cent., or 88 per cent. of the whole State output. These figures show a gain of one per cent. over 1885, in the Cherokee-Crawford and the Leavenworth districts, and a falling-off of 8 per cent. in Osage, while the rest of the State output increased from 2 to 12 per cent. This gain is chiefly due to the development of the coal-fields of Neosho, Franklin, Linn and Bourbon counties. The following is a detailed statement of the coal mined in Kansas in 1887, taken from the Mine Inspector's report:

<i>Counties.</i>	<i>Bushels.</i>
Bourbon.....	250,000
Cherokee.....	9,831,553
Coffey.....	17,000
Crawford.....	8,041,225
Ellsworth.....	75,000
Franklin.....	552,000
Leavenworth.....	4,352,018
Linn.....	385,000
Lincoln.....	73,000
Neosho.....	750,000
Osage.....	9,840,189
Republic and Cloud.....	200,000
Russell.....	3,000
Shawnee.....	107,000
Total.....	34,475,985

<i>Counties.</i>	<i>STRIP COAL IN KANSAS IN 1887.</i>	<i>Bushels.</i>
Bourbon.....		750,000
Cherokee.....		600,000
Crawford.....		1,700,000
Coffey.....		150,000
Labette.....		150,000
Linn.....		25,000
Osage.....		600,000
All other counties in the State.....		800,000
Total.....		4,775,000

RECAPITULATION.		<i>Bushels.</i>
Coal mined in Kansas in 1887.....		34,476,985
Strip coal in Kansas in 1887.....		4,775,000
Total coal output for 1887.....		39,251,985

Referring to accidents, Mr. Findlay speaks as follows:

"The year 1887 may be considered as lucky, so far as accidents in the coal mines of the State were concerned, for while the list of those occurring, both fatal and non-fatal, may appear large, yet when the increased number of miners is taken into consideration, the number of those injured compares most favorably with the numbers of previous years. The causes of these accidents should also be considered, as a perusal of the list as given will show that gross carelessness upon the part of the victims was the cause of a large proportion of the entire number. Of the fatal accidents, four in number, resulting in the death of seven men, three lost their lives by an explosion, two by falling of the roof of their working-rooms, and two by falling down shafts. The last four were the unfortunate victims of their own carelessness. As will also be observed in the list of non-fatal accidents, the larger proportion of them were of a very slight nature.

"No accidents occurred during the year chargeable to poisonous gases. This can be attributed to the improved ventilation of the mines."

It must be remembered that the terrible accident at Frontenac occurred in 1888, subsequent to the issue of this report. As is generally known, this catastrophe was the result of an explosion, and the following paper upon the subject contains many valuable suggestions by Mr. Findlay:

EXPLOSIONS.

"In Kansas coal mines, during the year 1887, there was but one accident caused by an explosion in which there was loss of life, namely, that which occurred on Saturday, the 17th day of December, in the Western Coal and Mining Company's mine No. 3, near Fleming, in Crawford county. Yet there were several slight explosions resulting from similar agencies, in which non-fatal accidents occurred, an explanation of which will be found with the fatal accidents in another part of this report.

"As to the cause of these explosions, there seems to be in mining circles a diversity of opinion, and as the Mine Inspector's opinion must be given as to the cause in this case as well as in other cases, it will be necessary for me to discuss briefly the various theories and give the reasons for my opinion, which is hereafter expressed.

"By some the cause is attributed to a poor quality of powder, and a blown-out shot considered an undercharge or overcharge, as they happen to term it.

"By others, to the ignition of the powder-smoke after the explosion of powder occurred.

"By others, to a blown-out shot stirring up dry coal-dust and ignited by the flame from the powder.

"And by others, to a blown-out shot liberating small quantities of gas from the solid coal at the instant of the powder explosion, which assists the flame from the powder in igniting the coal-dust stirred up by the blast, completing a combination to carry out the explosion to a greater or lesser dimension, as the case may have been.

"In discussing these different theories, I will do so in the order I have stated them.

“First, A poor quality of powder. It is known to me that there are mines in the State where large quantities of powder of various grades, poor and good, have been and are now being used, where no explosions have yet occurred from this cause, and in all probability will never occur, the same mines being located in the coal field with the mines where explosions have occurred. We will take, for instance, the shallow mines of the Kansas and Texas Coal Company, at Pittsburg and Litchfield, the mines of the Pittsburg and Midway Coal Company, at Midway, and various other shallow mines in both Crawford and Cherokee counties, and ask why no such explosions have occurred in these mines, where there has been as much powder used and as much diversity of qualities as there have been in other and deeper mines in the same coal field which have had numerous explosions attributed to the poor quality of powder? In my opinion, the poor-quality theory is based upon a wrong belief. If it was of itself the only cause of an explosion in one mine, why does it not so act in another? Simply because it is not the true cause of the explosion. I do not wish to disparage the opinions of others in this connection, as I feel that they were the honest expression of those from whom they emanated; yet while I think the opinions are based upon a doubtful foundation, and that such is not the true cause, I am not prepared to say that it, under certain circumstances, in combination with other agencies, will not aid in the starter of an explosion. Still I believe it is of itself harmless.

“Second, The igniting of powder-smoke. It is my opinion that this theory is also based upon doubtful foundation, from the fact that no such explosions have taken place in any except the deeper mines, where there is every reason to believe that at the instant of an explosion of a shot of powder, enough pent-up gas is liberated from the solid coal to make sufficient flame to consume the smoke which would seem to an observer to be the flame from the powder-smoke, when it was unquestionably gas.

“Third, Ignition of coal-dust by the flame from the powder of a blown-out shot. It is my opinion that the belief in the ignition of the coal-dust by the flame from the powder of a blown-out shot, is something nearer the true cause of the numerous explosions than any of the theories heretofore mentioned; and while I favor this opinion to a certain extent, it is my belief that the flame from the powder alone is not the only agency existing to start such explosions as we have had. I believe that it takes this combined with other agencies to constitute the true starter, but after the explosion has originated, it is my belief that the coal-dust is the greatest factor in carrying it out to the proportions that such explosions have so far assumed, basing my opinion upon the fact that all such explosions have occurred in the deeper and dry mines, having more or less dust in them, and perhaps giving off a little gas, where it was a known fact that prior to the explosion of the shot of powder, no perceptible explosive accumulations of gas existed, as naked lights were used in the locality where the explosions originated; but even if this be a fact, it is not good evidence that a change did not take place, and that while it remained in an unexplosive state, immediately after the explosion of powder occurred, there is every reason to believe that the locality immediately adjoining the shot did not so remain in an unexplosive state, and a combination took place.

“Fourth, Ignition of coal-dust by the flame from the powder and gas liberated from a blown-out shot. It is my opinion that this last theory embraces correctly the true ingredients necessary for the starter of an explosion, but lacking one ingredient required to carry it out to any great dimensions, namely, that of good fresh air. The purer the air and briske the current, the greater the liability of small particles of coal dust being held in suspension, and consequently as the explosion goes sweeping along it becomes more and more violent until it finds relief

at the mouth of the shaft. It is known that in mines where explosions have occurred they were among the best ventilated in the district, which unfortunately for the victims furnished more oxygen for the complete combustion of the coal-dust and to aid and extend its dangerous and increasing blast. Had the mines in question not been so well ventilated, the explosions, no doubt, would have been less violent, as the combination would have been broken. Upon investigation in all cases there was found sufficient air to render harmless in all the regular courses of working any gas that may have been emitted during the time the miner was at work in his room; but immediately after the firing of a shot, the miner having retreated for safety, more pent-up gas was liberated from the solid coal, which may have made an explosive mixture and became ignited; diffusion with the air to render it harmless, being too slow for it to be otherwise, from the fact that all such explosions occurred in places mere or less in advance of the air-current there intended to render it harmless. Another fact worthy of notice is that all explosions except those otherwise explained, followed the air-current from where the explosion originated, which goes to show that no accumulations of gas from other sources were being carried by the air-current passing the locality of the explosion, or it would have ignited both ways, going against the current as well as with it. It also goes to show that coal-dust after once started is the greatest agency in carrying it out. In all cases where men have been burned they were on the outlet side of the air, while others who were still nearer the explosion, but on the inlet side, were not in the least harmed.

"It may be said that the explosions in our mines are comparatively new, and that such have arisen from mines becoming deeper and dryer, resulting in the forming of a combination which comes unawares upon the miners and managers, resulting in some painful consequences before its true nature is detected. It has been often said after the occurrence of dreadful mining disasters by explosions, that had there been a good and sufficient current of air no such explosions would have occurred. This assertion would of course be well founded in the case of a gas explosion. Many explosions have doubtless occurred through a combination similar to ours, and at the same time its cause has been attributed to gas alone when that cut but small figure in it. The idea that no explosions take place except those caused by gas is gradually being abandoned, because well-ventilated, dry and dusty mines, almost free from gas, have exploded with great violence, where a little gas, harmless of itself, may have taken only a part. Combinations of this character are found principally, if not wholly, in mines using powder to extract the coal, and are made up of the following parts: A blown-out shot, a little gas, coal-dust, and a good, brisk current of air. It now remains for us to destroy the combination, to prevent explosions by keeping down the dust by a system of sprinkling. This at the present time, without the existence of any law save that of self-preservation, is being done in places. Where it has been carried out, no explosions of any consequence have occurred since its adoption, and I recommend it and think a law should be enacted compelling the sprinkling of mines where large quantities of coal-dust are known to exist."

The report has the following to say regarding strikes:

"As will be seen below, there were but few strikes during the year, and none of them of any great importance.

"In June a strike occurred at the Keith & Perry Coal Company's shaft No. 3, at Weir City, on account of screen, which lasted but a few days, the company remedying the grievances complained of by the miners. In June another strike took place at the Keith & Perry Coal Company's shaft No. 2, operated by William Hamilton, at Weir City. This was also caused by an enlargement of the openings of the screen

bars, and lasted thirty days, the company finally complying with its agreement with the miners by putting in new screens.

"In September the day hands in the Weir City district went out on a strike, which lasted but a short time. It is the custom in that district to reduce the price of mining in the spring and restore it on September 1st, the day hands receiving the same rate of wages during the entire year. When on September 1st last the miners' pay was restored to the usual winter standard, the day hands struck for an increase of wages from \$2 to \$2.25 per day. They returned to work, however, in a short time, at the usual rate of wages.

"In November the miners in the Leavenworth Coal Company's mine struck for an increase of one cent per bushel in wages, and also by reason of their dissatisfaction with the manner of weighing coal. The strike lasted but five days, the company finally complying with the miners' demands.

"In this connection I will say that I believe that the law passed by the Legislature of 1886, to establish a board of arbitration, will be productive of much good, and should be encouraged both by the miners and operators."

Mr. Findlay has this to say regarding the lead and zinc mines of the State:

"This industry, which is confined to the southeastern portion of the State, was in a very prosperous condition during the entire year of 1887. The shipments from Galena for the year were 32,000 tons of zinc ore, and 1,600,000 pounds of lead ore. This interest gives employment to a large number of men, and represents a large amount of money invested. The industry is comparatively in its early youth, but the operators are continually developing new fields and extending old ones, and there can be no doubt that it will in time grow to large proportions. I had often promised myself at each visit to this section of the State to make an extended tour of these mines, but in every instance was compelled to defer it for lack of time. The industry is of such magnitude and of such importance to the State that, though not entirely within my official sphere, I should have liked to give it an extended notice; but without the necessary statistics, and the facts obtained by a personal investigation, am unable to do more than to refer to it in this most cursory manner.

"A portion of the product of the mines is shipped to Pittsburg and Weir City, Kansas, where there are a number of extensive smelting works, and prepared for shipment. These also give employment to a large number of men."

Following is a table of reports of operators received at this office. It embraces all of the large companies doing business in the State, except the State mine at the Penitentiary. This being a public institution worked by convict labor, we have omitted it, preferring to give only the results represented by labor working under normal conditions.

TABLE OF COAL-MINE OPERATORS, BY COUNTIES, FOR THE YEAR ENDING JUNE 30, 1888.

COUNTY.		No. of return	Number of days in operation	Average number of employes	Number employed at date of making this report	Change in price of mining per bushel.		Number of men engaged in strikes	Price of mining per bushel.		Capital invested.	WEEKLY WAGES OF EMPLOYÉS WHEN FULLY EMPLOYED.												Hours of labor weekly, when fully employed								
						Increase.....	Cts.		Decrease....	Cts.		Summer.....	Cts.	Winter.....	Cts.	Mining boss.....	Miners	Inside laborers.....	Outside laborers.....	Mule drivers.....	Engineers	Blacksmiths.....	Carpenters.....		Weighmen.....	Dumpers	Boys					
Cherokee..... “ “ “ “ “ “ “ “ Cloud..... Crawford..... “ “ Leavenworth..... “ Linn..... “ “ Osage..... “ “ “ “ “ “ “ “ Totals.....	220	225	200								\$100,000	\$18 75	\$15 00	\$12 00	\$9 00	\$12 00	\$15 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$12 00	\$4 50	60
	*220	*230	*200								125,000	18 75	15 00	12 00	9 00	12 00	15 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	4 50	60	
	220	35	40								8,000	20 00	24 00	12 00	9 00	12 00	15 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	7 50	54
	237	450	350								*250,000	21 25	15 00	12 00	9 00	10 50	12 00	15 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	12 00	7 50	54	
	183	5	5								1,500	13 82	15 00																		42	
	200	4	3								1,000		20 00																		40	
	240	10	2								1,000		15 00	12 00																	60	
	230	7	7								1,000		19 00	13 00																	57-60	
	300	250	400								*200,000		15 00	15 30																	60	
	250	25	20								15,000		13 00	15 00																	60	
	215	447	323								300,000		23 00	15 30																	60	
	150	80	120								100,000		25 00	15 00																	45	
	160	6	2								1,000		18 00	10 00																	51	
	250	6	6								4,000		12 00	10 50	9 00																57-60	
	150	15	22								15,000		12 00	10 50																	54	
	216	27	35								2,500		15 00	12 60																	60	
	215	27	14								4,000		15 00	13 50																		60
	270	9									1,000		9 00																			60
	13	18	15								1,450		12 00	11 25																		60
	300	15	6								200		15 00	12 00	10 00																	60
	130	3	2								3,000		15 00	12 00	10 00																	60
	240	40	40								10,000		16 50	13 50	13 50																	54
	335	70	100								5,000		15 00	12 60	13 50																	54
	210	63	40								*15,000		15 00	12 60	13 50																	54
	297	343	299								*30,000		15 00	12 60	13 50																	54
236	640	512								350		8 00																				
300	8	5																														
		5,634	3,033	2,746							\$1,194,000																					

* Estimated.

A Cherokee coal company, running 7 shafts, employed 7 mine bosses, 350 miners, 21 inside day laborers, 21 outside day laborers, 35 mule-drivers, 7 engineers, 7 blacksmiths, 7 carpenters, 7 weighmasters, and 7 dumpers; a total of 469. Another running 2 shafts, had 2 bosses, 184 miners, 19 inside day laborers, 6 outside day laborers, 17 mule-drivers, 2 engineers, 2 blacksmiths, 1 carpenter, 2 weighmasters, 5 dumpers, and 4 boys; a total of 248. The same company had 2 shafts in another location, where 2 bosses were employed, 180 miners, 10 inside and 6 outside laborers, 11 mule-drivers, 2 engineers, 2 blacksmiths, 2 carpenters, 2 weighmasters, 4 dumpers, and 4 boys, or 225 in all.

In Crawford county, one company operated 4 shafts, employed 4 mine bosses, 350 miners, 55 inside and 45 outside laborers, 16 mule-drivers, 6 engineers, 8 blacksmiths, 5 carpenters, 4 weighmasters, and 10 boys; in all 503 hands. Another ran 1 shaft, employing 1 mine boss, 20 miners, 1 engineer, 1 blacksmith, 1 weighmaster, and 2 boys. There was a strike in this mine, lasting 10 days, caused by general dissatisfaction on the part of the miners. It was settled by a compromise, the company allowing one-fourth cent advance per bushel during the winter. This strike took place in September, 1887, and 25 men were engaged.

One of the shafts in Leavenworth county had a strike in which 100 men were engaged, commencing November 13, 1887, and lasting five days. This strike was for an advance of 1 cent a bushel, and was successful. A second strike occurred on February 15, 1887, against a 1-cent reduction, and lasted till March 11. This strike was not successful. Another shaft, employing one mine boss, 65 miners, 8 inside and 3 outside laborers, 2 engineers, 1 blacksmith, 6 carpenters, 2 weighmasters and 3 dumpers—in all 91—states that the price of mining advanced from 4 to 5 cents from October 1, 1887, to March 15, 1888, and then dropped again to 4 cents. A strike occurred about January 1, and lasted ten days. Reason given by company: "Miners wanted to run the business because it was a new shaft, and because the many listened to the advice of the few." A second strike occurred on March 15. There was no demand for coal, and the company reduced the price paid for mining. This the men resisted, and a strike ensued, lasting two weeks, at the end of which time the miners went to work at the reduced price.

Linn county—One mine employed 1 boss, 18 miners, 1 laborer and 1 weighmaster.

Osage county—1 mine boss, 35 laborers and one weighmaster were employed by one of the companies. This company had a strike beginning July 1, and ending about July 31, 1888. The company says: "The miners got what they came out for, namely, the price they had at the time they struck." Another mine employed 1 mine boss, 25 miners and 1 weighmaster; wages advanced during the year 14 per cent. In another small mine, employing 12 men and two boys, the miners were on strike at date of report, which concludes as follows: "They got their price, and will go to work to-morrow,

July 26, 1888." Another mine employed 1 boss and 40 miners. Another, 1 boss, 52 miners, 1 laborer, 2 mule-drivers, 1 weighmaster and 6 boys; wages had advanced about 16 per cent. Shaft No. 1, of another company, employed 8 mine bosses, 245 miners, 4 inside and 2 outside laborers, 7 mule-drivers, 1 blacksmith, 1 carpenter, 8 weighmasters and dumpers, and 23 boys, a total of 299. In shaft No. 2, of the same company, but in another location, 11 mine bosses were employed, 462 miners, 4 inside and 5 outside laborers, 2 blacksmiths, 1 carpenter, 12 dumpers and 50 boys, in all 547. Shaft No. 1 reports an advance of wages of about 10 per cent. and shaft No. 2 of 8 per cent.

The next is a condensed table by counties :

TABLE SHOWING THE NUMBER OF REPORTS RECEIVED FROM EACH COUNTY, WITH DETAILED AVERAGES.

No. of returns	Counties.	No. of days in operation during year ending June 30, 1888.		Average No. of employes for year.		No. employes at time of making this report.		Change in price per bushel for mining.	Average price per bush. for mining.		Capital invested.
		Total.....	Average.....	Total.....	Average.....	Total.....	Average.....		Summer.....	Winter.....	
6	Cherokee.....	1,280	213.33	949	158.17	798	133.00	½c. inc. Sept. 1..	3½	4	\$485,500
1	Cloud.....	230	230.00	10	10.00	2	2.00	.....	7½	8	1,000
2	Crawford.....	550	275.00	275	137.50	420	210.00	.....	3½	4	215,000
2	Leavenworth	365	182.50	527	263.50	443	221.50	{ 1c. inc. Oct. 1.	4	5	400,000
3	Lyon.....	560	186.66	27	9.00	30	10.00	{ 1c. dec. Mch. 15		4	20,000
11	Osage.....	2,649	240.81	1,245	113.18	1,053	95.73	{ 1c. inc. Sept. 1,	6	7½	72,500
								{ 1c. inc. Dec. 1..			
25	Totals	5,634	225.46	3,033	121.32	*2,746	114.41	.....	.....	.....	\$1,194,000

*24 reporting.

AVERAGE WEEKLY WAGES PAID WHEN FULLY EMPLOYED.

No. of returns	Counties.	Mine boss.....	Miners.....	Inside laborers.....	Outside laborers.....	Mule-drivers.....	Engineers.....	Blacksmiths.....	Carpenters.....	Weighmen.....	Dumpers.....	Boys.....	Hours per week.....
6	Cherokee.....	\$18 51	\$15 00	\$12 00	\$9 00	\$11 63	\$14 25	\$13 50	\$12 00	\$11 75	\$12 00	\$4 50	56
1	Cloud.....	20 00	20 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
2	Crawford.....	17 00	13 00	12 00	10 00	12 00	14 00	14 00	13 50	12 00	.....	4 20	59
2	Leavenworth	24 00	15 15	14 45	9 37	12 75	18 00	15 00	13 75	13 75	9 37	6 00	60
3	Linn.....	15 00	10 25	9 00	9 00	.....	12 00	.....	.....	9 00	9 00	.....	52½
11	Osage.....	13 55	12 50	12 62	9 70	9 00	.....	13 50	12 00	10 73	.....	6 50	56

The average number of days in operation for each of the twenty-five mines reporting was 225.46, against 192.2 last year; a gain of 33.44 for each. The price paid per bushel for mining was 3½ cents in summer and 4 cents in winter, in Cherokee and Crawford counties, 4, 4½ and 5 cents in Leavenworth county, and 5 to 8 cents in Osage county, against 3, 3½, 4 and 4½ cents in Cherokee and Crawford counties last year, 4 cents in Leavenworth,

and 5 to 7 cents in Osage; a slight advance in Osage and Leavenworth for a part of the year, although later, prices dropped back in Leavenworth. A comparison by counties shows that in the Cherokee and Crawford county mines, the average number of employes was 1,224, against 1,477 the year preceding; but at the date of making the report, July 1, 1888—the dull season—1,218 were employed, against 1,085 at the corresponding date of the preceding year. The average number of employes per mine in these counties was 105 in 1887, against 153 in 1888.

The number of hands employed in the Leavenworth district by the mine reporting on July 1, 1887, was 263; the average for the two mines reporting on July 1, 1888, was 221½. In Osage county the average per mine on July 1, 1887, was 74.3, and on July 1, 1888, it was 95.73. Taken as a whole, the average of all reporting was 72.2 on July 1, 1887, against 114.42 on July 1, 1888. The returns this year give the average weekly earnings of miners in Cherokee and Crawford counties, when they are fully employed, at \$14 per week; in Leavenworth \$15.15, and in Osage at \$12.50. The Osage county miner gets a larger price per bushel, but the vein is thinner and his output less; his average weekly earnings are less, but as he uses little if any powder his *net* earnings are probably as much. The capital employed by the 25 companies and individual operators reporting this year aggregates \$1,194,000, against \$827,500 for the 38 reports received last year, showing a gradual concentration of capital, while the average number of hands employed, as a natural result, steadily increases, rising from 72 in 1886 to 78 in 1887, and to 121 in 1888. Thirty-eight mines employed during the year ending June 30, 1887, an average of 2,893 hands, while 25 mines reporting this year averaged 3,033.

The following statement of the number of bushels of coal dug by two miners of Cherokee county, taken from the books of a check-weighman employed by the miners at one of the shafts, will, taken together, give a fair showing of the gross average yearly earnings of miners employed in that field:

MONTHS.	NO. OF BUSHELS.		MONTHS.	NO. OF BUSHELS.	
	<i>Summer, at 3½ cents.</i>			<i>Winter, at ¼ cents.</i>	
March.....	1,101	847	October.....	1,934	1,280
April.....	1,545	810	November.....	2,263	1,307
May.....	939	745	December.....	1,714	753
June.....	1,135	684	January.....	1,856	612
July.....	1,011	589	February.....	1,379	765
Totals.....	5,731	3,675	Totals.....	9,146	4,717

These reports cover ten months of the year, from October 1, 1887, to July 31, 1888; August and September are not included. The first column gives the work of a first-class miner, and represents an output above the average,

and the second shows the work of a miner who did not come up to the average; this second miner worked 171 days, the number of days worked by the other are not given. The first miner got out 5,731 bushels of coal at $3\frac{1}{2}$ cents per bushel, amounting to \$200.58, and 9,146 bushels at 4 cents, for which he received \$365.84, his total earnings for the 10 months being \$566.42. The other dug 3,675 bushels at $3\frac{1}{2}$ cents, amounting to \$128.62, and 4,717 at 4 cents, receiving \$188.68; a total for the 10 months of \$317.30. The one dug 14,877 bushels and the other 8,392; a total of 23,269 and an average of 11,634 bushels. Their joint earnings amounted to \$883.72 and averaged \$441.86. The poorer miner worked 171 days during the 10 months and dug 8,392 bushels; this would make his average per day a fraction over 49 bushels and his daily wages about \$1.85 or \$11.10 per week; his average days worked per month was 17.1. Assuming that the first-class miner averaged 20 days per month, he worked 200 days and dug nearly $74\frac{1}{2}$ bushels per day, his wages averaging \$2.83, or \$16.98 per week of 6 full days; this would make the joint full weekly earnings of the two \$28.08, an average of \$14.04. The full-time weekly earnings of miners in this field, taking Crawford and Cherokee counties together, as reported by the operators, is \$14. A much fuller report obtained last year from two Cherokee county miners shows an average of 19 days per month worked, and a gross earning of \$2.22 per day, for digging 59 bushels. These two reporting this year (allowing the best miner 20 days per month) worked a little more than $18\frac{1}{2}$ days at \$2.34, and dug $61\frac{3}{4}$ bushels. The two reports last year were for the entire 12 months. The men dug 26,752 bushels, a monthly average of 2,229, against 2,326 bushels reported this year.

From the Mine Inspector's report we find that 5,598 miners and mine laborers were employed in the year 1887 in the coal mines, and that the earnings of 5,150 of this number amounted to \$1,541,530.10, an average to each of \$299.32.

REMARKS OF OPERATORS.

An Osage county operator says: "We do very little work in the summer. We employ a pit boss about six months of the year and a weighmaster about five months during the fall and winter."

Another from the same county says: "We are simply 'strippers,' and depend chiefly upon local trade, as we are four miles from a railroad. We work only during the warm months."

Another says: "We have spent about \$10,000 on land and in sinking shafts during the present summer. We have not yet put any coal on the market, but will soon be ready to do so."

PART 6.

BUILDING AND LOAN ASSOCIATIONS.

Within a few years the building and loan association movement has made a rapid and remarkable advance throughout the country, and especially among the wage-earners has it grown in popularity. The growth of these associations has however been much more rapid in the Eastern States, where large numbers of wage-workers are found in the manufacturing districts, than in the sparsely settled States of the West. There are now over 600 of these associations in Philadelphia, with an aggregate capital of \$100,000,000. Over 6,000 workingmen have secured homes in that city through these associations. In the city of Baltimore there are at the present time over 500 building associations in a prosperous and flourishing condition. The assets of the building associations of Massachusetts amount to over \$4,000,000. More than 3,000 people in that State have built and own homes through the aid given by these associations. One association in Dayton, Ohio, has 6,500 members, and loans \$25,000 per week. In Chicago there are at present 375 associations, 300 of which have been organized within the last three years.

In almost every city of the Union the building association has grown to be an important institution to the wage-workers. The mutual-benefit or coöperative feature of the building association appeals very strongly to this class, enabling them to secure advantages impossible for them to otherwise obtain. In view of the growing popularity of these institutions among the industrial classes, and with the object of securing as complete information as possible as to the operations of these associations in Kansas, circulars were prepared and sent to over 100 associations in the State. Replies were received from forty-three, containing the information given in the table annexed to this chapter. Owing to the different methods employed in conducting the business of these institutions, comparison is difficult as to the success of individual associations.

To illustrate the principle upon which building associations are founded, suppose that 100 men in a certain community find that they can save over and above their necessary expenses of food, clothing, shelter, etc., \$5 each per month. Instead of depositing this money in a bank, they determine to

form a building association and assist each other to secure homes. To carry out this plan they issue a certificate of stock to each member, each certificate to represent, when fully paid up, \$500; it would, if there were no other revenue than the \$5 per month from each member, take one hundred months to bring the stock to maturity, or the par value of \$500 per share. It is decided, however, to charge the borrower 6 per cent. per annum interest for the use of the money. Two or more members wish to borrow the \$500 paid in the first month on the terms proposed, and can give satisfactory security by a first mortgage on real estate. It is agreed among the members that the one who is willing to pay a bonus or premium for priority of loan, shall be given the preference, and the money is sold to the highest bidder. The interest and premium to be paid in monthly installments and loaned each month, together with the regular assessment of \$5. The system of reloaning the interest and premium each month, thus compounding many times during the year, is the means of making the associations profitable to the members. After the lapse of say ninety months, it is found that by compounding the interest and adding same to the amount paid on stock each month, that the shares have reached the par value of \$500 each, and that all of the members except two have secured loans of \$500 each, and that there is \$1,000 in the hands of the treasurer. This money is handed to the two members who have not made loans, and the mortgages on the property of the others are released, and the association terminates.

This is among the earliest as well as the most simple form of the building association. It will be seen that this method would necessitate the organization of an endless number of associations, and to avoid this the system known as the "serial plan" was adopted. This plan allows the issue of additional stock, designated as series one, two, three, etc., in the order of issue; this enables persons to become members upon the issue of a new series, without the organization of a new corporation. As soon as the first series reaches par or maturity, the stock on which loans have not been made is paid and canceled, the stock on which loans have been made is canceled and the mortgages released, and the series dissolved. This operation is carried out with each series as it matures.

Many different plans are used in the methods of collecting the premium bid for priority of loan. Some associations deduct the amount from the loan at the time it is made, the borrower paying interest on the amount actually received. This method has evidently led some of the secretaries into the error of including the whole amount so deducted, as profit for the current year, instead of only including the proportion earned, or one-eighth of the whole amount. This will account for the large earnings reported by some associations in the table annexed. Other associations do not deduct the premium bid from the amount of the loan, but divide the amount into ninety-six equal payments, ninety-six months being the time usually required to mature stock of \$200 par value. This is based upon actual

experience and calculations made upon an average premium. The premium is paid weekly or monthly, in the same manner as the interest. Other plans are used, but they are similar in principle to those given. Probably a fair average of the profits made by associations in this State would be about fifteen per cent. per annum on the money invested. This would seem to indicate that the borrower was paying an excessive rate of interest, but it must be remembered that the profits result largely from the methods of compounding the interest weekly or monthly. This weekly or monthly payment of interest does not work any hardship upon the borrower, for the reason that the amount paid each week or month, including dues, interest and premium, is less than would be paid as rent for the same accommodations. It really operates as a benefit, as the class who borrow from building associations find it much easier to pay a proportion of the interest each week or month, than to save a sum each month to meet the semi-annual accruing interest of a loan made in the regular way. It might be urged that the profitable results of investments in building associations would attract capitalists who would not become borrowers. This would of course be a serious objection, were it borne out by the facts; but it has been found in the actual operations of building associations, that capitalists as a rule do not invest largely in them. The reasons may be found in the peculiar conditions attached to this form of investment. The investment must be made weekly or monthly, and in small sums, usually less than \$20 on monthly and \$5 on the weekly plan, the limit of holding allowed to one individual. It is also necessary for the investor to attend the regular weekly or monthly meeting, these meetings being held at a late hour in the evening. In this form of investment no dividends are paid until the maturity of the stock, usually about eight years, and therefore it does not offer a regular income from the investment, which is generally the object of capitalists to secure. To guard against the management passing into the hands of capitalists, many associations provide in their by-laws that the elections of officers shall be by a personal vote, regardless of the number of shares of stock held. This is a wise provision in coöperative corporations. It is said that under the methods of building associations, borrowers sometimes pay an excessive rate of interest. This is probably true in some cases, where, under the excitement of competition, borrowers bid a premium largely in excess of that which prudence would sanction; but with a better knowledge of the principle on which the premium is bid, this evil will probably correct itself. In some associations in the Eastern States, no premium is paid, the money being loaned at six per cent. per annum. Of course where no premium is paid, it takes much longer for the stock to mature. Another benefit to the industrial classes in these associations is the knowledge which the members acquire of business connected with real estate, and the saving and investment of money.

In a general way it may be said that while the non-borrower reaps his

share of the premium paid by the borrower, the borrower himself is getting his share also, and the more active the demand for the money and the larger the premiums paid for its use, the sooner the borrower's debt is canceled. He is a shareholder in the "bank" and gets his part of the profits. To be sure, the borrower is forced to repay, in small installments, his loan at much shorter intervals than if he were dealing on the old plan, but the money is immediately reloaned and he shares in its earnings. Suppose A borrows \$500 from B at 8 per cent. interest, payable annually with 20 per cent. of the principal. He would, at the end of the first year, have to raise the sum of \$140 in a lump. If A is a wage-worker, and determines to each month set apart one-twelfth part of this sum, or \$11.66, he would find few investments where the money could earn anything, and at the same time feel sure that it would be returned to him at the time when his payment would have to be made; and the chances are that it would be dead capital on his hands for the entire period, or, taking his chances, he might spend or invest it and subject himself to embarrassment when the time came for the debt to be paid. But with monthly payments into the treasury of a building and loan association his money helps to make up the sum sought after by another borrower, and at once begins earning to help pay off his own debt.

I am indebted to Mr. J. E. McLeod, secretary of the Shawnee Building and Loan Association of Topeka, for most of the foregoing information. Mr. McLeod has had wide experience in connection with these organizations, and is the secretary of the State League, which embraces most of the associations of this character doing business in the State.

On the three pages following will be found tables compiled from the reports received from the associations reporting.

TABLE OF BUILDING AND LOAN ASSOCIATIONS.

No. of return,.....	County.	Town or city.	Name of association.	Series.
1	Allen	Iola.....	Iola Building and Loan Association.....	.....
2	Anderson.....	Colony.....	Colony Building, Improvement and Savings Associat'n,	A
3	Atchison.....	Atchison.....	U. S. Building Company.....	.....
4	Barber.....	Kiowa.....	Kiowa Building, Loan and Savings Association.....	1
5	".....	Medicine Lodge..	Medicine Lodge Savings, Loan and Building Associat'n,	1, 2, 3
6	Barton.....	Great Bend.....	Farmers' and Merchants' Building and Loan Associat'n,	.....
7	Brown.....	Horton.....	Home Building and Loan Association.....	1
8	Butler.....	Augusta.....	Augusta Building and Loan Association.....	3
9	Clay.....	Clay Center.....	Phoenix Loan and Building Association.....	¹ 1, ² 2
10	Cloud.....	Concordia.....	Concordia Building and Loan Association.....	A-B
11	Coffey.....	Burlington.....	Building, Loan and Savings Association.....	2
12	Cowley.....	Floral.....	Floral Building and Loan Association.....	.....
13	".....	Winfield.....	Walnut Valley Building and Loan Association.....	.....
14	".....	".....	Winfield Building and Loan Association.....	³ 9
15	Davis.....	Junction City.....	Junction City Building, Loan and Savings Association..	A, B, C
16	Dickinson.....	Carlton.....	Carleton Building and Loan Association.....	.....
17	".....	Hope.....	Hope Building and Loan Association.....	.....
18	Edwards.....	Kinsley.....	Kinsley Building and Loan Association.....	.....
19	Elk.....	Longton.....	Loan and Building Association.....	.....
20	Greenwood.....	Severy.....	Severy Building, Savings and Loan Association.....	.....
21	Harper.....	Bluff City.....	Bluff City Building and Loan Association.....	.....
22	Harvey.....	Sedgwick City..	Sedgwick Building and Loan Association.....	.....
23	Kingman.....	Kingman.....	Kingman Building and Loan Association.....	D
24	Labette.....	Chetopa.....	First Building and Loan Association.....	.....
25	Lane.....	Dighton.....	Dighton Building and Loan Association.....	.....
26	Leavenworth..	Leavenworth.....	Citizens' Mutual Building and Loan Association.....	.....
27	Lincoln.....	Lincoln.....	Saline Valley Building and Loan Association.....	.....
28	Lyon.....	Emporia.....	Emporia Mutual Loan and Savings Association.....	.....
29	".....	".....	Metropolitan Building and Loan Association.....	2
30	Marion.....	Marion.....	Marion Building and Savings Association.....	.....
31	McPherson.....	McPherson.....	McPherson Building and Loan Association.....	.....
32	Mitchell.....	Glen Elder.....	Glen Elder Building Association.....	.....
33	Montgomery ..	Elk City.....	Elk City Building and Loan Association.....	.....
34	Ottawa.....	Delphos.....	Delphos Building and Loan Association.....	A
35	Reno.....	Arlington.....	Arlington Building and Loan Association.....	A
36	Rush.....	LaCrosse.....	Mutual Loan, Building and Savings Association.....	3
37	Russell.....	Dorrance.....	Dorrance Building and Loan Association.....	.....
38	Sedgwick.....	Andale.....	Andale Building and Loan Association.....	.....
39	".....	Mount Hope.....	Greeley Building and Loan Association.....	1
40	Shawnee.....	Topeka.....	Shawnee Building and Loan Association.....	.....
41	Sumner.....	Geuda Springs..	Geuda Springs Building and Loan Association.....	.....
42	".....	Mulvane.....	Mulvane Building and Loan Association.....	1-2
43	".....	Wellington.....	Home Building and Loan Association.....	2

¹ No. 1 started November 1, 1886.² No. 2 started November 1, 1887.³ Seven series in form, terminating in No. 9.

TABLE OF BUILDING AND LOAN ASSOCIATIONS.

No. of return.....	Date of organization.	No. of share-holders.		No. of shares.	Dues paid per share.	Dues assessed weekly or monthly.	Par value of shares.	Profits per share per year.
		Males.....	Females.					
1	May 1, 1885.....	39	4	163	\$37 00	Monthly.....	\$200 00	\$3 90
2	April 11, 1887.....	42	7	167	22 75	Monthly.....	29 05	3 15
3	January 22, 1887.....	50	4	750			100 00	
4	April 21, 1887.....	36	5	238	16 00	Monthly.....	100 00	
5	June 3, 1886.....	53	4	386		25 cents weekly...	{ 38 98 23 16 13 23	{ 6 36 4 25 2 60
6	January 5, 1887.....	3		250				
7	February, 1888.....	8				Monthly.....		
8	July, 29, 1884.....	55	4	489		25 cents weekly...	100 00	{ 1418 92 1513 39 1613 40
9	October 20, 1886.....	76	16	1,093		50 cents monthly,	100 00	30 percent
10	June 18, 1887.....	175	35	{ 1973 2697 }		15 cents weekly...	{ 108 10 111 95	{ 173 08 184 68
11	March 15, 1884.....	41	6	335		25 cents weekly...		199 per c't
12	March 15, 1886.....	9	4	21	{ 430 00 518 00 }	Monthly.....	{ 1043 20 1131 20 }	5 28
13	January 1, 1887.....	62	15	286		25 cents weekly...	100 00	
14	November 19, 1881...	91	41	774		\$1 monthly.....	100 00	29
15	May 1, 1886.....	180	120	1,700		15 cents weekly...	100 00	{ 2 00 2 50
16	November 3, 1886.....	11	2	70	14 00	Weekly.....		
17	September 6, 1886.....	39	10	3258	7 80	15 cents weekly...	25 85	
18	March 19, 1887.....	41	14	465		15 cents weekly...	100 00	295 00
19	March 3, 1887.....	39	3	42		\$1 monthly.....	15 00	2 64
20	April 1, 1883.....	35	6	188		25 cents weekly...	{ 123 00 1268 25 }	
22	June 7, 1884.....	38	4	193	{ 445 66 532 25 626 25 426 00 519 50 613 00 76 50 814 00 }	Weekly.....	{ 1057 09 1154 27 1937 43 }	{ 174 49 186 68 216 18
23	August 21, 1888.....	43	14	304		25 cents weekly...	100 00	{ 177 81 187 36 215 01
24	June 30, 1887.....	65	5	400		Monthly.....	200 00	3033½ p. c't
25	February 1, 1887.....					50 cents monthly,	64 00	
26	April 1, 1884.....	210	23	835		\$1 monthly.....	200 00	3 50
27	March 15, 1886.....	27	5	74		50 cents weekly...	60 00	
28	April, 1884.....	450	167	3,780		Weekly.....		10 percent
29	July, 1882.....	31	31	2,150	74 00	Weekly.....	22	26 00
30	23 March 30, 1886....	64	12	32 744	{ 112 50 28 00 244 50 }	50 cents monthly,	100 00	{ 1 53 97 3042 278 42
31	January 8, 1887.....	68	14	252	39 00	Weekly.....	200 00	
32	March, 1887.....	5				Monthly.....	10 00	
33	March 1, 1886.....	30	3	206		50 cents monthly,	100 00	
34	May, 1887.....	63	11	323	12 00	Monthly.....	18 14	6 14
35	January 14, 1887.....	22	4	130	13 25	Weekly.....	100 00	15 percent
36	January 12, 1886.....	41	2	245		50 cents monthly,	100 00	
37	February 7, 1888.....	27	4	108	18 00	Monthly.....	200 00	7 00
38	January 12, —.....	45	8	389		25 cents weekly...	20 00	6 05
39	February 10, 1886....	13		134		25 cents weekly...	33 00	12 00
40	April 1, 1885.....	223	44	1,858		\$1 monthly.....	200 00	15 percent
41	December 27, 1886....	11		38	Paid up		2525 00	
42	February 9, 1887.....	43	5	20 193	{ 119 00 27 00 }	\$1 monthly.....		284 98
43	August 28, 1886.....	78	21	1,053	7 80	Weekly.....	100 00	3 94
	Totals.....	2,651	646	22,754				

¹ Series "A." ² Series "B." ³ Originally 500 shares. ⁴ Dues paid on series "A." ⁵ Dues paid on series "B." ⁶ Dues paid on series "C." ⁷ Dues paid on series "D." ⁸ Fourteen assessments, \$1 each. ⁹ New shares taken monthly; no uniformity. ¹⁰ Value of series "A." ¹¹ Value of series "B." ¹² Depends on date of issue. ¹³ Value of series "C." ¹⁴ Profits for 4 years. ¹⁵ Profits for 2½ years. ¹⁶ Profits for 1½ years. ¹⁷ Profits for series "A." ¹⁸ Profits for series "B." ¹⁹ Profits on unloaded stock. ²⁰ Profits since organization. ²¹ Profits for series "C." ²² Paid out February 1, 1888. ²³ First series issued June 7, 1886. ²⁴ Profits for series "C." ²⁵ Formed to erect building. ²⁶ First series 93; second series 100. ²⁷ For year ending December 30, 1887. ²⁸ Total profits for year 1887. ²⁹ Matures in 5½ years. ³⁰ Profits for nine months. ³¹ Not recorded. ³² First series, 377; second series, 285; third series, 82.

TABLE OF BUILDING AND LOAN ASSOCIATIONS.

No. of return.....	No. of shareholders borrowers	No. of wage-workers borrowers	No. of female bor- rowers	Total net assets.	Total net gains in last year.	Assets in real estate.	Assets on bonds and mortgages.	Other forms of investm'ts, including cash on hand.	Office ex- penses, in- cluding printing, etc.	Expenses for salaries.
1	27	12	1	\$7,770 47	\$429 10	\$200 00	\$7,400 00	\$196 72	\$11 85	\$54 32
2	15	7	.....	4,408 50	674 95	.....	4,400 00	8 30	186 15	52 00
3	.....	.....	.....	.....	.....	137,074 33	.....	.....	.....	.....
4	12	.....	3	5,500 00	.....	.....	5,500 00	2 37	117 90	265 00
5	16	5	1	13,595 17	2,000 00	8,599 21	.....	500 00	150 00	176 00
6	.....	.....	.....	.....	.....	Two lots.	.....	.....	.....	.....
7	.....	.....	.....	915 20	.....	.....	852 00	63 20	49 30	.....
8	47	40	1	.....	36 00	.....	.....	500 00	.....	300 00
9	28	10	5	17,849 94	30 p. c.	.....	17,560 00	664 94	54 45	200 00
10	13	.....	.....	12,774 80	.....	.....	12,840 00	934 80	163 90	240 00
11	16	6	2	10,154 29	9 p. c.	.....	9,261 00	893 29	84 48	260 00
12	6	.....	.....	887 99	43 23	.....	808 56	18 26	.....	24 00
13	13	8	3	4,772 00	.....	.....	3,250 00	1,522 00	200 00	150 00
14	34	28	12	23,000 00	2,162 70	.....	22,000 00	1,000 00	57 00	300 00
15	35	23	.....	20,800 00	.....	.....	20,800 00	.....	420 00	360 00
16	6	.....	.....	2,000 00	.....	.....	2,000 00	.....	71 95	136 00
17	8	3	1	5,373 41	.....	.....	5,300 00	73 41	50 89	208 00
18	11	.....	1	7,601 42	.....	.....	7,000 00	601 43	10 00	75 00
19	3	2	.....	.....	116 41	.....	1,000 00	.....	.....	5 00
20	32	12	3	10,000 00	.....	.....	7,300 00	2,400 00	14 00	52 00
21	.....	.....	.....	650 00	.....	.....	650 00	.....	.....	.....
22	23	15	1	.....	1,198 12	.....	.....	.....	.....	115 60
23	13	1	5	10,989 19	948 47	1,500 00	9,200 00	289 19	413 22	400 00
24	11	1	.....	.....	.....	.....	7,000 00	700 00	180 00	180 00
25	10	3	1	3,987 91	1,564 66	.....	3,835 00	253 86	1 ¹ 63 80	75 00
26	50	33	11	14,400 00	2,922 50	.....	36,500 00	1,462 45	167 00	200 00
27	13	3	2	7,620 00	.....	.....	6,600 00	620 00	50 00	150 00
28	284	175	38	134,832 61	² 8,426 53	.....	131,936 16	2,896 55	1,106 51	2,112 00
29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	20	.....	3	8,125 26	{ ⁸ 82 cts. ⁹ 71 cts. ¹⁰ 42 cts.}	.....	7,580 00	393 86	151 40	⁶ 355 00
31	23	15	4	8,654 05	.....	.....	8,141 00	514 03	68 60	300 00
32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	9	9	2	³ 4,455 42	1,196 22	.....	4,200 00	255 42	12 75	25 00
34	10	5	.....	5,859 45	1,983 22	.....	5,150 00	159 45	65 50	60 00
35	7	5	.....	2,686 38	.....	.....	2,333 25	353 13	.....	.....
36	15	3	2	5,116 55	.....	.....	4,900 00	.....	.....	40 00
37	8	4	.....	2,700 00	750 00	.....	2,700 00	8 00	2 00	40 00
38	17	7	2	10,000 00	1,200 00	.....	10,000 00	.....	50 00	119 00
39	10	4	.....	3,700 00	912 83	.....	3,300 00	400 00	⁵ 40 00	⁷ 60 00
40	57	53	3	59,430 56	3,571 83	.....	57,047 62	2,382 94	346 66	420 00
41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	11	6	2	⁴ 3,496 81	498 10	.....	3,342 64	154 17	77 75	.....
43	28	21	8	8,491 23	4,136 68	.....	21,000 00	1,264 28	68 60	514 56
941	519	116	.....	\$441,550 25	\$37,335 55	\$147,373 54	\$405,687 23	\$21,485 93	\$4,495 66	\$8,023 48

¹ One and one-half years.² From April 1, 1887, to April 1, 1888.³ February 13, 1888.⁴ September 10, 1888.⁵ Office expenses from beginning.⁶ Expenses for salaries from beginning.⁷ \$96 first year.⁸ Profits for Series A, per share.⁹ Profits for Series B, per share.¹⁰ Profits for Series C, per share.¹¹ Office expenses for one and one-half years.

It is not to be understood that the number of building and loan associations included in the foregoing table embrace all of the organizations of this kind doing business in the State, for it is the first attempt of the Bureau to collect statistics of this character, and no complete record could be obtained. Recently we have learned the addresses of several others, but too late to procure statements in time for this report. It may be stated, however, that all or nearly all of the older and most successful associations find place in our table, and the aggregate represents at least 75 per cent. of the whole. An analysis shows that there are 2,651 male and 646 female shareholders in the companies reporting, a total of 3,297, and that these shareholders represented 22,704 shares, an average of nearly 7 each. So many different plans are submitted that it is extremely difficult to evolve a uniform system of tabulation, and in order to arrive at any intelligent deductions our tables fairly bristle with foot-notes.

The number of shares represented by each organization show a wide range, varying from 21 in No. 12 to 3,780 in No. 28. The total dues paid to date of report also present great disparity, chiefly by reason of age, the older associations and the older series representing the larger amounts; thus, No. 29, organized in July, 1882, has received \$74, while the third series of No. 30, recently organized, received only \$4.50.

Twenty associations require that their dues shall be paid weekly, and nineteen monthly. Of those receiving dues weekly, the assessment of four is 15 cents, of seven 25 cents, and of one 50 cents; the others failed to report. Of those receiving monthly dues, five assess 50 cents, and five \$1, the other nine not reporting. Owing to the various schemes under which the companies operate, no reliable figures can be given regarding the par value of their shares; six report \$200, and fourteen \$100; the rest range all the way from \$1.95 to \$68.25. It may be possible that this question was not fully understood, and that many give the value per share at time of making report. In the matter of profits per share for the year great variations prevail, ranging from 42 cents to \$7.36. The 42 cents profit, however, does not represent the entire year, as the series was of very recent formation.

In some instances, as explained by the foot-notes, the entire profits per share are given, amounting in one case to \$26. Some of the associations give their year's profits in the form of percentages, ranging from 9 to 15 per cent., and this method is probably the most intelligible. Of the 3,297 shareholders, 941, or about 28½ per cent., were borrowers, and of this per cent. 519, or more than one-half, were wage-workers. One hundred and sixteen of the whole number of borrowers were women.

The net assets of 35 of these companies were \$441,550.25, No. 28 being the largest, holding \$134,832.61, and No. 21 the smallest, holding \$650. The average for all is \$12,615.72. The net gains of 20 for this year (one of these is for 1½ years) were \$37,335.55, an average of \$1,866.77 each. One reports gains per share of 42 cents, 71 cents, and 82 cents, the company

running three series. One reports a gain for the year of 30 per cent., and one of 9 per cent. The assets in bonds and mortgages of 35 companies were \$405,687.23, an average of \$11,591.06, No. 28 holding \$131,936.16 and No. 21 only \$650. Thirty-one associations had other forms of investments amounting in the aggregate to \$21,485.93, an average of \$693.09. This consisted chiefly of cash on hand, one company (No. 28) reporting as much as \$2,896.45, and another (No. 4) only \$2.37.

Under the head of office expenses, which includes printing, etc., thirty-one report a total of \$4,495.66, an average of \$145.02. These represent the expenses for a single year, except one (No. 25), \$63.80 for a year and a half, and No. 39, which expended \$40 from its date of organization, February 10, 1886. No. 28 had the largest expense, \$1,106.51, and No. 37 the lowest, only \$2.

The annual salaries paid by thirty-four amounted to \$8,023.48, an average of \$235.98, the highest was paid by No. 28, \$2,112, and the lowest by No. 19, \$5. No. 30 paid \$355 from date of organization, March 30, 1886.

REMARKS.

Under this head more or less information is given regarding the progress of the associations by several of the secretaries who send in reports. The secretary of the Colony Building Improvement Association, Anderson county, says:

"We have been organized almost two years, and our total dividends have amounted to \$6.30 per share on unborrowed stock—dividends are not declared on stock borrowed out."

The secretary of the United States Building Company of Atchison, writes:

"We have just completed our new bank building. We are not a regular building association; we do not intend to loan money or to build any more buildings. Our principal object was to provide ourselves with good banking rooms and offices overhead.

The following statement of the second annual report of the Medicine Lodge Savings, Loan and Building Association was appended to a report received from Barber county, and explains itself:

RECEIPTS.		DISBURSEMENTS.	
Weekly dues.....	\$8,903 50	Loans	\$8,599 21
Premiums.....	3,047 14	Premiums	3,047 14
Fines.....	67 80	Secretary's salary.....	306 00
Forfeitures.....	117 75	Attorney's fees.....	70 00
Interest	717 33	Building committee	17 00
Initiation fees.....	130 00	Recording	21 00
Withdrawal of stock.....	293 00	Insurance inspector	8 00
Deposits by applicants.....	318 65	Stationery	128 55
		Printing and soliciting	28 50
		Deposits by applicants.....	178 45
		Withdrawal of stock.....	243 48
		Incidentals.....	16 85
		Cash	930 99
Total	\$13,595 17	Total	\$13,595 17

CASH VALUE OF SHARES.

First series, 104 weeks old: Paid-up dues per share.....	\$26 25	
Net profit up to date.....	12 73	
		\$38 98
Second series, 70 weeks old: Paid-up dues per share.....	17 50	
Net profit up to date.....	5 66	
		23 16
Third series, 44 weeks old: Paid-up dues per share.....	\$11 00	
Net profit up to date.....	2 23	
		13 23
Total resources.....	\$45,432 38	
Total liabilities.....	41,633 25	
Net profit up to date.....	\$3,799 73	

The Great Bend (Barton county) secretary says regarding report No. 6 in the table:

"This is a building association organized for the purpose of putting up an opera hall and store-room, and not to do a general business."

The Clay Center secretary says:

"Owing to our running under the gross plan it is difficult to figure exact profits. In the event of loans being repaid a rebate is allowed on premium; the money repaid, however, creates another premium. I approximate our profit; in consequence our association has been very successful, and our plan is to start a new series annually."

From Concordia, Cloud county, comes the following:

"We have been progressing finely until the failure in crops in this county, when shareholders showed a tendency to withdraw their stock. The premiums have averaged about 35 per cent., the highest being 45 per cent. Nearly all of our borrowers have borrowed for the purpose of building themselves houses."

Following is a statement from this association:

SERIES "A"—973 SHARES.

ASSETS.		LIABILITIES.	
Loans.....	\$11,140 00	Assessments.....	\$8,184 35
Cash on hand.....	413 78	Amount due on loans.....	652 70
Expense.....	393 90	Profits.....	3,305 93
Stock amount paid on withdrawals.....	285 30		
Total assets.....	\$12,142 98	Total liabilities.....	\$12,142 98
Amount profits belonging to each share.....			\$3 08
Amount of interest received.....			295 73
Amount of fines received.....			65 90
Amount of transfer fees received.....			50 75
Amount of profits from the sale of pass-books.....			13 50

SERIES "B"—697 SHARES.

ASSETS.		LIABILITIES.	
Loans.....	\$1,700 00	Assessments.....	\$1,344 15
Cash.....	521 02	Balance due on loans.....	60 37
Expense.....	26 50	Profits.....	\$43 00
Total assets.....	\$2,247 52	Total liabilities.....	\$2,247 52
Amount of profit to each share, Series "B,".....			\$1 17

In answering question No. 10 of the blank, the secretary of the Burlington (Coffey county) Association says:

"As our stock is issued on application the first of each month, it is difficult to ascertain the par value of each share."

The secretary of the Floral Building and Loan Association (Coffey county), No. 12 in the table, says:

"I consider this kind of an association one of the very best ways for young men who are getting regular daily or monthly wages, to lay up part of their money."

Number 13, of Winfield, says:

"There has been quite a number of withdrawals from our association, by persons who got into tight places during the 'boom,' which accounts for the few shares taken."

No. 15, Junction City says:

"Our association is on the decline, owing to the fact that our shareholders are withdrawing, and we are paying back to them the amount they have paid in on their shares. We issued in our first and only series, 200 shares, and they have all been drawn out but 70."

No. 20, Greenwood county, says:

"Our association is organized on a plan which permits issue and withdrawal of shares at the commencement of each quarter. This accounts for the great difference in the value of shares. A share one-quarter old, is worth \$3; a share one year old is worth \$12.75, and one of five years old is worth \$65."

Number 21 says:

"We were organized in May, 1887, and loaned \$650, but are now closing up business, as it is not profitable to continue. The number of people interested in such concerns is not enough to support one."

Number 22, Sedgwick City, Harvey county, writes:

"This report is made out from my January 1, 1888, report, as I only make one report per year. One year ago we had over 500 shares, but times have been so hard that over one-half have drawn out, as they had to use their money to get something to eat. If times were better, we could start a good strong series at once, as many young men have mortgages on their homes and this is the only way they can pay them off. When in full employment they don't miss the money, and the debt grows less. All of our expenses are paid from the profits; so our profits show a less amount than they would if the expenses were paid from assessments."

No. 23, Kingman, says:

"Our profits for the past year have been made largely off of withdrawals, hence the small apparent profits. Real estate is put in at cost value, which is somewhat less than the market value."

No. 25, Dighton, Lane county, writes:

"We are young and small as yet, but have a good demand for funds, and consequently a high average of premiums." Highest premium bid 95, lowest 40, average 70.4. For last six months, highest premium 95, lowest 70, average 85. We have had 135 bid since last report."

Following is the third semi-annual report of the Dighton Building and Loan Association:

RECEIPTS, JANUARY 16 TO JULY 12, 1888.		EXPENDITURES.	
Cash on hand last report.....	\$59 64	On loan account.....	\$1,271 90
Received from dues.....	1,303 50	Withdrawals.....	38 00
Received from interest.....	84 22	Secretary's salary.....	37 50
Received from premiums.....	113 06	Sundry expenses.....	19 85
Received from fines.....	48 69	Books and blanks.....	7 00
Received from admittance fees.....	14 50	Cash on hand.....	253 86
Received from pass-books.....	3 00		
Received from transfers.....	1 00		
Received from sundries.....	50		
Total.....	\$1,628 11	Total.....	\$1,628 11
ASSETS.		LIABILITIES.	
Cash on hand.....	\$253 86	Dues.....	\$3,423 25
Loans in force.....	3,835 00	Balance due on loan No. 10.....	326 00
Books and stationery on hands.....	95 00	Profits to date—	
Due from members—		Fines.....	\$104 14
Dues.....	\$85 00	Interest.....	152 87
Interest.....	7 50	Premium.....	267 71
Premium.....	6 64	Transfers.....	3 75
Fines.....	30 91	Additional fees.....	120 00
	130 05	Pass-books.....	21 00
		Forfeitures.....	26 50
		Total.....	\$695 97
		Additional fines, interest and premium due.....	45 05
		Total profits.....	\$741 02
		Less expenses to date—	
		Salary.....	\$112 50
		Over-paid loan No. 3.....	06
		Books and blanks.....	25 60
		Postage and sundr's.....	38 20
			\$176 36
			564 66
Total.....	\$4,313 91	Total.....	\$4,313 91
SHARES IN FORCE.		VALUE OF SHARES.	
First series.....	361	First series.....	\$10 54
Second series.....	5	Second series.....	6 57
Third series.....	53	Third series.....	3 10½
Total.....	419		

Following is the fourth annual report of No. 26, The Citizens' Mutual, of Leavenworth, for the year ending March 31, 1888:

RECEIPTS.		DISBURSEMENTS.	
Cash on hand per last report.....	\$21 17	Invested in mortgages.....	\$12,380 89
From dues.....	11,880 95	Withdrawals, first series.....	1,923 00
From interest.....	1,853 25	Withdrawals, second series.....	748 89
From fines.....	35 05	Withdrawals, third series.....	461 15
From premiums on loans.....	2,620 49	Withdrawals, fourth series.....	14 25
		Secretary's salary.....	200 00
		Advertising and printing.....	117 83
		Furniture.....	50 00
		Rent and fuel.....	35 00
		Sundries.....	17 45
		Balance in treasury.....	462 45
Total.....	\$16,410 91	Total.....	\$16,410 91

ASSETS.		LIABILITIES.	
Mortgages.....	\$36,500 00	Stock in first series (1884), 336 shares,	
Unpaid dues.....	359 52	@ \$67.90	\$22,814 40
Furniture.....	50 00	Stock in second series (1885), 113 shares,	
Cash in treasury.....	462 45	@ \$49.66	5,611 58
		Stock in third series (1886), 160 shares,	
		@ \$32.60	5,216 00
		Stock in fourth series (1887), 226 shares,	
		@ \$16.17	3,654 42
		Dues paid in advance.....	69 50
		Undivided balance.....	6 07
Total	<u>\$37,371 97</u>	Total	<u>\$37,371 97</u>

No. 27, Lincoln, writes:

"Profits have never been declared. Our shares run till the association is closed up, when profits will be divided."

No. 28, Emporia, says:

"This association is on a different plan from any other association of which I have any knowledge. It combines the savings-bank idea more largely than these organizations generally do. It has been very successful so far, and bids fair to continue in a prosperous condition. I inclose copy of quarterly statement, etc., of the Emporia Mutual Loan and Savings Association:

"This association began business April 1, 1884, with 280 stockholders and 1,948 shares. It had shares as follows: At the end of the first year, 2,847; second year, 3,388; third year, 3,477.

"It has, at the end of the third quarter of the fourth year, 3,633 shares and 545 stockholders. It has 1,705 shares loaned. The association has paid on canceled stock at six per cent. interest as follows: First year, \$137.62; second year, \$263.64; third year, \$516.25; in nine months of the fourth year, \$535.20.

"It has paid money back to stockholders, on call, at six per cent. interest, as follows: First year, \$8,454.00; second year, \$18,818.75; third year, \$26,461.50; in nine months of the fourth year, \$33,967.75; total, \$87,702.00.

"It has paid in dividends, the same being ten per cent. per annum on all unborrowed stock, exclusive of taxes and expenses of every kind: First year, \$1,072.18; second year, \$2,933.47; third year, \$4,854.15.

"It has for net undivided profits at the end of the third quarter of the fourth year, \$6,868.44.

RECEIPTS.		EXPENDITURES.	
Dues	\$17,486 73	Loans	\$16,181 00
Interest	3,015 68	Expenses — salaries, rent, etc.....	544 13
Fines.....	119 57	Dues repaid.....	7,422 59
Register fees.....	109 75	Interest on stock.....	203 51
Loans paid.....	2,166 60	Dividends paid.....	191 60
Expense foreclosure.....	25 00		
Cash in treasury beginning of quarter.	1,279 19		
Overloaned.....	340 31		
Total.....	<u>\$24,542 83</u>	Total.....	<u>\$24,542 83</u>
RESOURCES.		LIABILITIES.	
Unperfected loans.....	\$2,618 00	Net amount paid on dues.....	\$107,459 05
Bonds and mortgages — first mortgages		Undivided profits.....	6,868 44
on real estate.....	116,133 46	Dividends unpaid.....	1,711 18
Bills receivable, secured by stock of as-		Reserve fund.....	3,436 93
sociation.....	993 00	Overloaned.....	340 31
Furniture and fixtures.....	71 45		
Total.....	<u>\$119,815 91</u>	Total.....	<u>\$119,815 91</u>

Number 29, also of Emporia, says:

"We have three series now running: third series with 3,000 shares, \$59 premium, paid; fourth series with 2,000 shares, \$31 paid in, and fifth series with 1,500 shares, \$5 paid.

No. 30 writes as follows:

"Our borrowers assign stock as security in addition to the real estate pledged. They pay 50 cents per month on each share of stock, $\frac{1}{96}$ part of premium bid and $\frac{1}{12}$ part of annual interest. Total number of certificates in force 90, average number of shares to each member $9\frac{1}{3}$."

In its prospectus, the Marion Building and Savings Association makes the following statement:

"The popular and rapidly spreading system of coöperative banking or a mutual savings fund and loan association, is simply a combination or partnership of individuals organized to advance money to its members, or such of the members as may become borrowers of its capital for the purpose of assisting such members in the acquisition of freehold property, the erection of buildings, the removal of incumbrances upon property already held by them, or any other purpose that may be required, the loans being in every case fully secured by a mortgage upon improved real estate or the stock of the association. The profits resulting from the employment of the capital of these organizations accrues from the interest and premiums paid upon loans together with the minor items, such as fines for non-payment of dues, etc.

"As a direct system of coöperative benefits it is especially designed for the industrial classes whose sole capital is that which their labor produces, and with this object constantly in view, it is found to suit the circumstances of this class, allowing them to reap the advantages consequent upon a union of many small capitals into one grand whole, fortified and strengthened by strict economy and light expenses of management and a mutual and equitable division of these expenses and the constantly accruing profits.

"As the system contemplates that this stock shall be paid by periodical installments, and that upon all loans an established rate of interest and a competitive premium shall also be paid, all of these accounts are divided into equal monthly payments for a stated period for the purpose of making the burden as light as possible.

"The association has an authorized capital of \$1,000,000, divided into shares of \$100 each; upon each share sold there is payable each month an assessment of fifty cents, and no larger sum or more frequent payment can be demanded of any member.

"The rate of interest upon loans has been fixed at eight per cent. per annum. Upon every loan made there is to be paid a certain amount in the form of a premium. This premium is created by an auction competition between parties desiring a loan, the loan being granted to the highest bidder. The profits of the association are credited to the stock whether borrowed or not.

"Loans may be returned at any time by giving thirty days' notice.

"Money advanced while the building is being erected, if the loan is consummated before work is commenced, thus enabling those of small means and consequent limited credit a great advantage.

"Another very important feature is the withdrawal feature; any member may withdraw from the association upon giving thirty days' notice; will be entitled to the full amount paid in, and interest for the time invested.

"To more fully illustrate the working of the association, we will suppose Mr. C. holds five shares of stock, which entitles him to a loan of \$500. The presiding officer announces the amount to be loaned and offers it to the highest bidder; other parties besides Mr. C. may desire to borrow, and the bidding commences. Mr. A. offers 40 per cent. (premium), Mr. B. offers 45 per cent., and Mr. C. bids again offering 50 per cent.; then Mr. B. offers 55 per cent. and Mr. C. offers 60 per cent., and

the highest bid being tendered by Mr. C., and his security ample, he secures the loan (taking all or part of the money). Starting out with the proposition that Mr. C. has borrowed the money for eight years, let us determine the amount of his monthly payments. The whole premium upon \$500 for eight years will be \$300—divided into 96 parts or months, and one-twelfth of 8 per cent. per month, and the total monthly payment will be as follows:

Premium, 1-96 part.....	\$3 12½
Interest, 1-12 part of 8 per cent.....	3 33½
Dues on 5 shares at 50 cents.....	2 50
Total monthly payment.....	\$8 96

"Total payment for eight years is \$848.20, and no commissions.

"Not to prolong this illustration, it may be sufficient to simply say that if Mr. C. continues to rent a house in the city for eight years and pays \$10 per month rent, he will have paid the sum of \$960 in eight years, and at the end of that time not have anything to show for this amount, beyond the mere satisfaction of knowing that his own head and the heads of his family have been sheltered for ninety-six months.

"On the contrary, Mr. C. purchases the house which he has been renting, paying therefor the sum of \$750, and having, as shown, borrowed six hundred and fifty dollars of the purchase-money of the association, he commences to pay on account to the association, in monthly payments of about \$9 per month, thus virtually becoming his own landlord, for at the end of about eight years his stock becomes of sufficient value to cancel the loan, and the property entirely free from incumbrance is wholly his own.

"Is there any plan better calculated to insure to everyone a home of their own upon such liberal and equitable terms? And if you do not expect to borrow from the association, is it not your interest to become a member of this coöperative organization at once and be among us and enjoy its advantages and reap a part of its benefits? Persons desiring to become members can do so at any time by calling at the secretary's office.

"Shareholders are required to pay 50 cents each month for each share held by them (no more or less) until the stock is worth \$100. Every shareholder may withdraw the amount actually paid into the association at any time, the association paying interest to the shareholder for the use of the money so withdrawn."

Number 33, Montgomery county, sends the following second annual statement of the Elk City Building and Loan Association:

ASSETS.		LIABILITIES.	
Loans last report.....	\$1,500 00	Dues of first series, last report.....	\$1,476 00
Loans during the year.....	2,700 00	Net gain first series, last report.....	472 32
Total loans.....	\$4,200 00	Total.....	\$1,948 32
Personal property, as per invoice.....	67 10	36 shares withdrawn 2d year.....	\$327 28
Cash in treasury.....	134 32	Profit on shares withdrawn second year.....	51 84
Delinquent dues and interest.....	54 00		379 12
		Passive capital.....	\$1,569 20
		Dues of 1st series, second year....	\$1,354 00
		Dues of 2d series, second year...	403 00
		Total dues.....	\$1,757 00
		Dues withdrawn, second series..	67 00
			1,690 00
		Net gain divided.....	1,194 48
		Balance gain undivided.....	1 74
Total assets.....	\$4,455 42	Total liabilities.....	\$4,455 42

PROFIT AND LOSS.

<i>Dr.</i>		<i>Cr.</i>	
Expenses during the year.....	\$37 75	Balance last report.....	\$0 98
Net gain divided.....	1,194 48	Interest.....	318 00
Gain undivided.....	1 74	Fines and transfer fees.....	31 40
		Premiums.....	831 75
		Profit on withdrawals.....	51 84
Total.....	<u>\$1,233 97</u>	Total.....	<u>\$1,233 97</u>
Dues paid on each share, first series, first year.....	\$6 00		
Gain on each share, first series, first year.....	1 92		\$7 92
Interest on value one share, last report.....	\$0 71		
Dues paid on each share, first series, second year.....	6 00		
Gain on each share, first series, second year.....	3 93		10 64
Total value one share, first series.....			<u>\$18 56</u>
Paid on each share, second series.....	\$6 00		
Gain on each share, second series.....	3 93		
Total value one share, second series.....			<u>\$9 93</u>
Number of shares first series now in force, 210; total value.....	\$3,897 60		
Number of shares second series now in force, 56; total value.....	556 08		
Balance undivided.....	1 74		
Total.....	<u>\$4,455 42</u>		

No. 35, Reno county, says that of the 130 shares reported, 15 are fully paid up.

No. 40, Geuda Springs, Sumner county, says:

"This corporation was formed for the purpose of erecting one brick building 25x66 feet, two stories and basement, in this town, and it is not its intention to carry on a regular building and loan business."

No. 41, Mulvane, Sumner county, states that it is only a year and a half old, and incloses the following business statement for the first year:

ASSETS.		STATEMENT OF PROFITS.	
Loans on real estate.....	\$1,642 64	Premiums.....	\$438 00
Cash in treasury.....	52 46	Interest.....	47 60
	<u>\$1,695 10</u>	Assessments.....	76 75
		Fines.....	5 30
LIABILITIES.		Gross profits.....	\$567 65
Dues for the year.....	\$1,442 00	Expenses.....	69 55
Withdrawn during year.....	245 00		
	<u>\$1,197 00</u>	Net gain.....	<u>\$498 10</u>
Net gain for the year.....	<u>\$498 10</u>	Net gain for each share.....	\$4 98
STATEMENT OF SHARES.		Dues paid on each share.....	12 00
Number shares issued during year.....	130	Value of each share.....	<u>\$16 98</u>
Number shares withdrawn during year....	30		
Number shares in force.....	<u>100</u>		

The following statement of the condition of the Shawnee Building and Loan Association of Topeka was prepared by Mr. McLeod, and gives the

practical results obtained by that organization since the date of its formation, in April, 1885:

STATEMENT FROM ORGANIZATION, APRIL, 1885, TO APRIL, 1888.

RECEIPTS.		DISBURSEMENTS.	
Dues, first series	\$32,045 00	Loans and accounts.....	\$59,454 51
Dues, second series	10,101 50	Expenses—secretary's salary, \$1,070 00	
Dues, third series.....	5,645 00	Office rent, stationery, etc.....	426 50
Dues, fourth series.....	5,827 00	Taxes.....	613 48
Dues, fifth series.....	616 00	Withdrawals.....	\$7,213 50
Interest, all series.....	4,131 75	Interest on same.....	203 73
Premium, all series.....	5,055 54		7,417 23
Fines, entrance fees, pass-books, etc.....	1,219 19	Cash in treasury.....	159 26
Repaid loans.....	4,500 00		
Total	\$69,140 98	Total	\$69,140 98

PROFIT AND LOSS.			
To expenses.....	\$2,109 98	By premium on loans.....	\$5,580 74
To interest on withdrawals.....	203 73	By interest.....	4,514 50
To net profit.....	9,205 72	By fines, etc.....	1,424 19
Total	\$11,519 43	Total	\$11,519 43

ASSETS.		LIABILITIES.	
Loans and accounts.....	\$54,954 51	Capital stock.....	\$47,740 00
Unpaid dues.....	719 00	Profit and loss.....	9,205 72
Unpaid interest.....	382 75		
Unpaid premium.....	525 20		
Unpaid fines.....	205 00		
Cash in treasury.....	159 26		
Total	\$56,945 72	Total	\$56,945 72

Below Mr. McLeod gives details by series :

SHARES.

<i>Series number.</i>	<i>Issued.</i>	<i>With-drawn.</i>	<i>In force.</i>	<i>Bor-rowed on.</i>
First	1,000	207	793	75 $\frac{3}{4}$
Second.....	398	142	256	52 $\frac{1}{2}$
Third.....	285	97	188	54 $\frac{1}{4}$
Fourth.....	539	91	448	70 $\frac{1}{4}$
Fifth.....	207	2	205	16

	<i>First series.</i>	<i>Second series.</i>	<i>Third series.</i>	<i>Fourth series.</i>	<i>Fifth series.</i>
Present value one share.....	\$44 17	\$39 28	\$28 72	\$12 98	\$3 06
Paid on one share	36 00	33 00	25 00	12 00	3 00
Profit on one share.....	\$8 17	\$6 28	\$3 72	\$9 98	\$0 06

The next table gives cost of loan of \$1,000 for eight years of five shares of stock in the Shawnee Association:

<i>Premium of—</i>	<i>Equals per month.</i>	<i>Interest per month at 6 per cent.</i>	<i>Installments on stock per month.</i>	<i>Total per month.</i>	<i>Total paid in eight years.</i>	<i>Value of stock at end of eight years to cancel loan.</i>	<i>Leaving balance.</i>	<i>Which is equal to—</i>
25 per ct.....	2.61	\$5 00	\$5 00	\$12 61	\$1,210 56	\$1,000 00	\$210 56	2.63 per ct.
30 “	3.12	5 00	5 00	13 12	1,259 52	1,000 00	259 52	3.25 “
35 “	3.65	5 00	5 00	13 65	1,310 40	1,000 00	310 40	3.88 “
40 “	4.16	5 00	5 00	14 16	1,359 36	1,000 00	359 36	4.49 “
45 “	4.68	5 00	5 00	14 68	1,409 28	1,000 00	409 28	5.11 “
50 “	5.21	5 00	5 00	15 21	1,460 16	1,000 00	460 16	5.75 “
55 “	5.73	5 00	5 00	15 73	1,510 08	1,000 00	510 08	6.38 “
60 “	6.25	5 00	5 00	16 25	1,560 00	1,000 00	560 00	7.00 “
65 “	6.77	5 00	5 00	16 77	1,609 92	1,000 00	609 92	7.62 “
70 “	7.30	5 00	5 00	17 30	1,660 80	1,000 00	660 80	8.26 “
75 “	7.81	5 00	5 00	17 81	1,709 76	1,000 00	709 76	8.87 “

Mr. McLeod closes with the following general information regarding these societies:

“Great Britain has 2,044 building associations, which have loaned to members, in ten years, \$890,000,000.

“Chicago records show \$474,000 in mortgages recorded by its building associations in the month of March, 1888.

“Whoever saves \$5 per month, and deposits it with the Shawnee Building and Loan Association will receive \$1,000 in cash in less than eight years, and more or less in proportion to amount deposited monthly.”

PART 7.

WAGE-WORKERS.

Contrary to the course pursued in former reports, I have this year, in submitting the results obtained from the workingmen of the State, confined myself to the information contained in the monthly reports, believing the facts given in these returns to be far more accurate than those gathered for the entire year, as is the case where only the annual blanks are used.

In compiling these monthly returns, great care has been taken with each separately, and tables made up monthly for each locality furnishing a sufficient number to admit of tabulation. Want of space prevents the publication of these tables, but in every case an accurate abstract has been made from them, giving the averages and percentages of each of the several items, and showing, among other things, the number reporting of each trade, the average days worked during the month, the size of family, and daily wages.

These monthly returns cover a period of ten months, from January to October, and in some instances the entire year, and present a fair average of the condition of the wage-workers in four, at least, of our principal cities, where the reports were gathered month by month from individual workingmen, through personal visitations of the Commissioner and his assistant. These blanks were also sent in large numbers through the mails to all of the populous centers of the State, addressed to labor organizations and to individual workingmen whose names could be obtained; but the returns were not, as a rule, satisfactory. The questions asked in the blank were not sufficiently well answered, and some of the most important were in many cases left unanswered. This result may be attributed, generally, to a fear on the part of the writer that he "won't get it just right," and if he is in the least doubt, he avails himself of it, and leaves the question blank. In common with the older bureaus, I am coming to the conclusion that accurate statistics can only be obtained through personal visitations; and as I have had no funds to employ agents, I have been obliged to depend upon my own efforts, and with this end in view have visited each month as many of the cities of the State as my time would permit, and as a result, have succeeded reasonably well, as the following pages of abstracts will, I think, demonstrate.

Following the monthly abstracts will be found summaries of each trade represented, covering all the months, and arranged by localities. In all, fourteen cities of the State are represented, by 1,494 reports:

ARKANSAS CITY.

MONTHLY RETURNS FOR JANUARY, 1888.

One railroad brakeman, 4 in family, worked 31 days, earnings \$55; 2 laborers, averaging 5½ to family, averaged 20 days at \$1.50; 1 constable and 1 justice of the peace, each with 6 in family, each reporting full time, earning \$50 apiece. Parents, 10; sons, 7; daughters, 10. Hours employed daily: men, 10. Highest daily wages justice of the peace and constable, \$1.92; lowest, laborers, \$1.50. Highest family income, brakeman \$55; lowest, laborer, \$28.50. Highest family expenses, laborer, \$40.60; lowest, laborer, \$27. Average number rooms rented, 2; monthly rent per room, \$3.75. Average price of fresh meat per pound, 10 cents; coal per ton, \$6; wood per cord, \$6.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Aver- ages.</i>	<i>Percentages.</i>
Persons in families.....	5	27	5½	.....
Persons employed.....	5	5	.....	18.52 of all persons reported.
Children at school.....	9	9	.....	52.94 of 17, total number reported
Men's daily wages.....	5	\$8 62	\$1 72	40.00 were below the average.
Days employed, men.....	5	123	24½	94.61 of working days.
Men's monthly earnings.....	5	\$215 00	\$43 00	100 of gross earnings.
Aggregate incomes and earnings.....	5	215 00	43 00	29.05 above gross expenses.
Daily income per family.....	5	6 93	1 38½	40.00 were below the average.
Monthly income per person.....	27	.....	7 96	.....
Daily income per person.....	27	.....	25½	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	4	\$54 00	\$13 50	32.41 of gross expenses.
Fresh meat.....	4	21 00	5 25	12.60 " "
Clothing.....	4	30 60	7 65	18.36 " "
Fuel.....	4	22 00	5 50	13.29 " "
Rent.....	2	15 00	7 50	9.03 " "
Sickness.....	2	21 00	10 50	12.60 " "
Education.....	1	3 00	3 00	1.80 " "
Aggregate family expenses.....	5	166 60	33 32	77.88 of gross income.
Daily expenses per family.....	5	5 37	1 07½	60.00 were below the average.
Monthly expenses per person.....	27	.....	6 17	.....
Daily expenses per person.....	27	.....	20	.....
Incomes above expenses.....	4	60 50	15 12	28.14 of gross income.
Expenses above incomes.....	1	12 10	12 10	5.62 more than gross income.
Net surplus.....	5	48 40	48 40	22.52 of gross incomes.

Below the average: 2 family incomes, 3 family expenses, 2 father's daily wages.

ARKANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR FEBRUARY, 1888.

One clerk, 3 in family, worked 28 days, and earned \$20; 1 caulker, 2 in family, worked 22 days at \$3; 1 carpenter, 3 in family, worked 2 days at \$1.75; 1 stationary engineer, 3 in family, worked 20 days at \$1.50; 1 railroad section hand, 5 in family, worked 26 days at \$1.10, and 6 laborers, 3 with an average of 4 in family, and 3 single men, the 6 working an average of $12\frac{1}{2}$ days at an average wage of \$1.48 per day. Parents, 14; sons, 7; daughters, 8; unmarried men, 3; native-born adults, 17. Average age of employed: men, 34; sons, 20. Average number of hours employed daily: men, $10\frac{7}{11}$; sons, 10. Paid weekly, 3; semi-monthly, 2; monthly, 6; had wages withheld, 5; 13 days each; preferred weekly payment of wages, 8; belonged to labor organizations, 7; had life insurance, 2; amount, \$4,000; compelled to take store pay, 1; owned homes, 3; homes mortgaged, 1; aggregate amount, \$200; annual interest, 7 per cent. Highest daily wages, caulker, \$3; lowest, clerk, $73\frac{1}{2}$ ¢. Highest family income, laborer, \$66.16; lowest, carpenter, \$3.50. Highest family expense, caulker, \$62.50; lowest, clerk, \$12.50. Average number rooms rented, 1; monthly rent per room, \$4. Average price of fresh meat per pound, $9\frac{1}{2}$ cents; coal per ton, \$6.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	11	32	$2\frac{11}{11}$	.....
Persons employed.....	.....	12	.....	37.50 of all persons reported.
Children at school.....	.....	8	.....	53.33 of 15, total number reported
Men's daily wages.....	11	\$16 91	\$1 54	72.72 were below the average.
Sons' daily wages.....	1	1 00	1 00	.....
Days employed, men.....	11	172	$15\frac{7}{11}$	63.08 of working days.
Days employed, sons.....	1	3	3	12.00 " " "
Men's monthly earnings.....	11	\$255 35	\$23 21	98.83 of gross earnings.
Sons' monthly earnings.....	1	3 00	3 00	1.17 " " "
Incomes from other sources.....	1	46 67	46 67	15.30 of gross incomes.
Aggregate incomes and earnings.....	11	305 02	27 73	5.04 above gross expenses.
Daily income per family.....	11	10 52	$95\frac{7}{11}$	54.54 were below the average.
Monthly income per person.....	32	.....	9 53	.....
Daily income per person.....	32	.....	$32\frac{5}{8}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	5	\$89 00	\$7 80	13.42 of gross expenses.
Fresh meat.....	5	10 50	2 10	3.61 " " "
Clothing.....	7	74 75	10 68	25.73 " " "
Fuel.....	4	13 50	3 37	4.65 " " "
Rent.....	3	12 00	4 00	4.13 " " "
Sickness.....	7	20 00	2 86	6.89 " " "
Interest, insurance, taxes.....	1	3 28	3 28	1.13 " " "
Education.....	5	7 25	1 45	2.49 " " "
Society dues.....	1	1 25	1 25	0.43 " " "
Boarding.....	6	87 00	14 50	29.95 " " "
Sundries.....	6	22 00	3 66	7.57 " " "
Aggregate family expenses.....	11	290 53	26 41	95.25 of gross income.
Daily expenses per family.....	11	10 02	91	63.63 were below the average.
Monthly expenses per person.....	32	.....	9 08	.....
Daily expenses per person.....	32	.....	$31\frac{1}{2}$	.....
Income above expenses.....	6	64 49	10 75	21.14 of gross income.
Expenses above incomes.....	5	50 00	10 00	16.39 more than gross income.
Net surplus.....	11	14 49	1 32	4.75 above gross incomes.

Below the average: 6 family incomes, 7 family expenses, 8 father's daily wages.

ARKANSAS CITY—CONCLUDED.

MONTHLY RETURNS FOR MARCH, 1888.

One carpenter, single, worked 20 days at \$2 per day; 1 carpenter with 3 in family, 15½ days at \$2.50; 1 clerk, 7 in family, 20 days at \$1; 1 railroad fireman, single, 28 days at \$2.25; 4 laborers averaging 4½ to family, 23 days, \$1.10; 1 policeman, 5 in family, 30 days, \$1.66 per day, 2 sons, 1 a painter, 9 days, \$2, 1 a laborer, 12 days, \$1.50; 1 restaurant keeper, 6 in family, 30 days, \$2, 2 sons, delivering papers, average 15 days at 50 cents per day. Parents, 13; sons, 9; daughters, 7; other persons, 6; unmarried men, 3; native-born adults, 16. Average age of employed: Men, 33.4; sons, 14.5. Average number of hours employed daily: men, 12.3. Paid weekly, 1; semi-monthly, 3; monthly, 4; had wages withheld, 1; 20 days. Preferred weekly payment of wages, 7. Belonged to labor organizations, 7. Locked out, 1. Had life insurance, 3; amount, \$6,000. Compelled to take store pay, 1. Owned homes, 3; homes mortgaged, 2; aggregate amount, \$600; annual interest, 13 per cent. Highest daily wages, carpenter, \$2.50; lowest, laborer, 80 cents. Highest family income, restaurant keeper, \$175; lowest, laborer, \$17. Highest family expenses, restaurant keeper, \$130; lowest, laborer, \$22.30. Average number rooms rented, 2.4; monthly rent per room, \$3.33. Coal per ton, \$6.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	10	38	3.8	.....
Persons employed.....	10	14	.....	36.00 of all persons reported.
Children at school.....	2	8	.....	50.00 of 16, total number reported.
Men's daily wages.....	10	\$15 71	\$1 57	50.00 were below the average.
Sons' daily wages.....	4	4 50	1 12	50.00 " " "
Days employed, men.....	10	235	23.5	87.00 of working days.
Days employed, sons.....	4	51	12.7	47.00 " " "
Men's monthly earnings.....	10	\$371 37	\$37 10	88.00 of gross earnings.
Sons' monthly earnings.....	4	51 00	12 75	12.00 " " "
Incomes from other sources.....	2	108 00	54 00	20.00 of gross income.
Aggregate incomes and earnings.....	10	530 37	53 03	1.69 above gross expenses.
Daily income per family.....	10	.....	1 71	70.00 were below the average.
Monthly income per person.....	38	.....	13 96	.....
Daily income per person.....	38	.....	45	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	8	\$179 00	\$22 25	34.35 of gross expenses.
Fresh meat.....	7	49 47	7 07	9.49 " " "
Clothing.....	8	53 50	6 69	10.26 " " "
Fuel.....	7	30 25	4 32	5.80 " " "
Rent.....	5	40 00	8 00	7.67 " " "
Sickness.....	3	28 75	9 58	5.51 " " "
Interest, insurance, taxes.....	3	19 45	6 48	3.73 " " "
Education.....	3	2 50	83	0.48 " " "
Society dues.....	4	6 85	1 71	1.30 " " "
Boarding.....	3	45 80	15 26	8.79 " " "
Sundries.....	2	66 00	33 00	12.65 " " "
Aggregate family expenses.....	10	521 57	52 15	98.34 of gross income.
Daily expenses per family.....	10	.....	1 70	50.00 were below the average.
Monthly expenses per person.....	38	.....	13 72	.....
Daily expenses per person.....	38	.....	44½	.....
Incomes above expenses.....	5	83 70	16 74	15.79 of gross income.
Expenses above incomes.....	5	74 90	14 98	14.13 more than gross income.
Net surplus.....	10	8 80	88	1.66 of gross income.

Below the average: 7 family incomes, 6 family expenses, 6 fathers' daily wages.

ATCHISON.

MONTHLY RETURNS FOR OCTOBER, 1887.

One bridge carpenter, 4 persons in family, worked 26 days at \$1.65 per day; 1 harness-maker, 4 in family, 24 days at \$1.33; 22 laborers, average 4.6 persons to family, 24.4 days at \$1.40; 2 laborers, railroad section, average 6 to family, 26 days at \$1.15; 2 lumber-yard hands, average 6 to family, 25 days at \$1.70; 2 stonemasons, average 7 to family, 25 days at \$2.50. Parents, 60; sons, 46; daughters, 43. Highest daily wages, stonemasons, \$3; lowest, section laborers, \$1.15. Highest family income, stonemason, \$106; lowest, section hands, \$29.90. Highest family expenses, laborer, \$70.50; lowest, section laborer, \$21.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	30	148	5	.....
Persons employed.....	30	40	.....	27.00 of all persons reported.
Children at school.....	22	20	.....	18.00 of 89, total number reported
Men's daily wages.....	29	\$43 08	\$1 48	58.00 were below the average.
Women's daily wages.....	2	1 25	62	50.00 " " "
Sons' daily wages.....	6	7 85	1 31	33.00 " " "
Daughters' daily wages.....	3	84	28	33.00 " " "
Days employed, men.....	29	714	24½	94.70 of working days.
" " women.....	2	49	24½	94.23 " " "
" " sons.....	6	144	24	92.31 " " "
" " daughters.....	3	90	30	97.00 of all days.
Men's monthly earnings.....	29	\$1,058 45	\$36 49	85.59 of gross earnings.
Women's monthly earnings.....	2	30 25	15 12	2.34 " " "
Sons' monthly earnings.....	6	188 50	31 38	14.52 " " "
Daughters' monthly earnings.....	3	20 00	6 66	1.55 " " "
Aggregate incomes and earnings.....	30	1,297 00	43 23	5.57 above gross expenses.
Daily income per family.....	30	.....	1 40	73.00 were below the average.
Monthly income per person.....	148	.....	8 76	.....
Daily income per family.....	148	.....	28½	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	30	\$509 00	\$16 97	41.55 of gross expenses.
Fresh meat.....	30	112 50	3 75	9.18 " " "
Clothing.....	27	153 00	5 66	12.49 " " "
Fuel.....	29	89 75	3 09	7.33 " " "
Rent.....	23	155 50	6 70	12.70 " " "
Sickness.....	21	119 50	5 69	9.76 " " "
Interest, insurance, taxes.....	4	36 00	9 00	2.94 " " "
Education.....	28	32 10	1 15	2.62 " " "
Society dues.....	2	50	25	0.04 " " "
Sundries.....	25	16 95	68	1.39 " " "
Aggregate family expenses.....	30	1,224 80	40 83	94.43 of gross income.
Daily expenses per family.....	30	.....	1 31	63.00 were below the average.
Monthly expenses per person.....	148	.....	8 28	.....
Daily expenses per person.....	148	.....	26½	.....
Incomes above expenses.....	18	144 35	8 02	11.13 of gross income.
Expenses above incomes.....	12	72 20	6 02	5.56 more than gross income.
Net surplus.....	30	72 10	2 40	5.57 of gross incomes.

Below the average: 22 family incomes, 19 family expenses, 17 father's daily wages.

ATCHISON — CONTINUED.

MONTHLY RETURNS FOR NOVEMBER, 1887.

Three clerks, average 4 persons to family, worked 26 days at \$1.54 per day; 1 confectioner, 5 in family, 26 days at \$1.60; 1 harness-maker, 4 in family, 24 days at \$1.40; 10 laborers, average 4 to family, 22.8 days at \$1.20; 1 section laborer, 6 in family 26 days at \$1.15; 1 painter, 4 in family, 24 days at \$2; 1 teamster, 3 in family, 26 days at \$1.25 per day. Parents, 35; sons, 19; daughters, 20. Hours employed daily: men, 9.4. Highest daily wages, painter, \$2; lowest, laborer, 75 cents; highest family income, laborer, \$55; lowest, laborer, \$15; highest family expense, carpenter, \$65.70; lowest, laborer, \$18.35; average number rooms rented, 3.8; monthly rent per room, \$2.16.

	<i>No. re- porting.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	18	74	4 $\frac{1}{10}$	
Persons employed.....	18	22		29.73 of all persons reported.
Children at school.....	9	16		41.00 of 39, total number reported
Men's daily wages.....	18	\$23 89	\$1 33	55.00 were below the average.
Women's daily wages.....	1	50	50	
Daughters' daily wages.....	3	1 06	35	66.00 were below the average.
Days employed, men.....	18	406	22 $\frac{1}{2}$	86.00 of working days.
" " women.....	1	26	26	100.00 " "
" " daughters.....	3	80	26 $\frac{3}{10}$	89.00 of all days.
Men's monthly earnings.....	18	\$575 90	\$32 00	93.64 of gross earnings.
Women's monthly earnings.....	1	13 00	13 00	2.11 " "
Daughters' monthly earnings.....	3	26 00	8 66	4.25 " "
Aggregate incomes and earnings.....	18	614 90	34 16	89.00 of gross expenses.
Daily income per family.....	18		1 14	50.00 were below the average.
Monthly income per person.....	74		8 31	
Daily income per person.....	74		27 $\frac{1}{10}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	18	\$282 65	\$15 70	40.90 of gross expenses.
Fresh meat.....	18	76 50	4 25	11.08 " "
Clothing.....	15	93 95	6 26	13.59 " "
Fuel.....	17	83 25	4 90	12.05 " "
Rent.....	11	82 00	7 45	11.86 " "
Sickness.....	8	24 55	3 09	3.55 " "
Interest, insurance, taxes.....	1	12 75	12 75	1.84 " "
Education.....	14	24 60	1 76	3.55 " "
Sundries.....	14	10 90	78	1.58 " "
Aggregate family expenses.....	18	691 15	38 40	11.00 above gross income.
Daily expenses per family.....	18		1 25	55.00 were below the average.
Monthly expenses per person.....	74		9 34	
Daily expenses per person.....	74		31 $\frac{1}{10}$	
Incomes above expenses.....	4	37 65	9 41	6.12 of gross income.
Expenses above incomes.....	13	113 90	8 76	18.52 more than gross income.
Net deficit.....	18	76 25	4 25	12.40 above gross incomes.

Below the average: 9 family incomes, 10 family expenses, 10 father's daily wages.

ATCHISON — CONTINUED.

MONTHLY RETURNS FOR DECEMBER, 1887.

Consisting of 9 laborers; 1, with 4 in family, earned 75 cents per day; 4 earned \$1 per day—1 with 2, 1 with 3, 1 with 5, 1 with 6, in family; 1 earned \$1.18, 6 in family; 1, \$1.20, with 5; and 2, \$1.25—1 with 4 and 1 with 5, in family; 3 teamsters; 2 earned \$2.50 and 1 \$3, with 2, 3 and 5 in family; 1 night watchman earned \$1.50; 1 clerk, \$1.73; 1 car-repairer, \$1.50; 1 section hand, \$1.15; and 1 wash-woman, 50 cents. Parents, 32; sons, 21; daughters, 19; other persons, 1. Average age employed: sons, 18; daughters, 18. Average number of hours daily: men, $8\frac{3}{4}$; women, 12; sons, 10; daughters, 15. Highest daily wages: teamster, \$3; lowest, wash-woman, 50 cents. Highest family income: teamster, \$72; lowest, laborer, \$14.40. Highest family expense: teamster, \$72.05; lowest, laborer, \$22.70. Average number rooms rented, $2\frac{9}{10}$; monthly rent per room, \$2.14. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.50; wood per cord, \$6.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	17	73	$4\frac{5}{7}$	.....
Persons employed.....	73	23	.....	31.50 of all persons reported.
Children at school.....	9	14	$1\frac{5}{7}$	35.00 of 40, total number reported
Men's daily wages.....	16	\$23 51	\$1 47	62.50 were below the average.
Women's daily wages.....	2	1 46	73	50.00 " " "
Sons' daily wages.....	3	3 30	1 10	33.33 " " "
Daughters' daily wages.....	2	70	35	50.00 " " "
Days employed, men.....	16	345	$21\frac{3}{4}$	80.00 of working days.
" " women.....	2	25	$12\frac{1}{2}$	46.33 " " "
" " sons.....	3	70	$23\frac{1}{3}$	86.40 " " "
" " daughters.....	2	37	$18\frac{1}{2}$	68.52 " " "
Men's monthly earnings.....	16	\$527 01	\$33 00	83.25 of gross earnings.
Women's monthly earnings.....	2	17 50	8 75	2.76 " " "
Sons' monthly earnings.....	3	77 80	25 93	12.29 " " "
Daughters' monthly earnings.....	2	11 00	5 50	1.70 " " "
Aggregate incomes and earnings.....	17	633 31	37 25	91.00 of gross expenses.
Daily income per family.....	17	20 43	1 20	53.00 were below the average.
Monthly income per person.....	73	.....	8 67	.....
Daily income per person.....	73	.....	28	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	17	\$303 80	\$17 87	43.65 of gross expenses.
Fresh meat.....	17	72 70	4 27	10.44 " " "
Clothing.....	15	116 85	7 79	16.78 " " "
Fuel.....	17	78 00	4 59	11.20 " " "
Rent.....	10	62 00	6 20	8.91 " " "
Sickness.....	8	23 35	2 92	3.36 " " "
Interest, insurance, taxes.....	2	10 25	5 12	1.47 " " "
Education.....	13	17 30	1 33	2.49 " " "
Sundries.....	17	11 70	69	1.69 " " "
Aggregate family expenses.....	17	695 95	40 94	9.89 above gross income.
Daily expenses per family.....	17	22 45	1 32	53.00 were below the average.
Monthly expenses per person.....	73	.....	9 53	.....
Daily expenses per person.....	73	.....	$30\frac{3}{4}$	.....
Incomes above expenses.....	5	27 15	5 43	4.29 of gross income.
Expenses above incomes.....	11	89 79	8 16	14.18 more than gross income.
Net deficit.....	17	62 64	3 68	9.89 above gross incomes.

Below the average: 9 family incomes, 9 family expenses, 10 father's daily wages.

ATCHISON—CONTINUED.

MONTHLY RETURNS FOR JANUARY, 1888.

Consisting of 7 laborers; 1 with 5 in family, no income; 1 with 5 in family, 75 cents per day; 1 with 2, \$1; 1 with 6, \$1.17; 2 with 5 each, \$1.20; and 1 with 5, \$1.50. Two railroad section-hands (1 son), 1 with 4 and 1 with 6 in family, \$1.15 per day; 1 harness-maker, 4 in family, \$1.46 per day; and 1 clerk, with 3 in family, \$1.73 per day. Parents, 22; sons, 19; daughters, 11. Average age of employed, sons, 19½. Average number of hours employed daily, men, 9¼; women, 12; sons, 10. Highest daily wages, clerk, \$1.73; lowest, laborer, 75 cents. Highest family income, clerk, \$45; lowest, laborer, \$10.25. Highest family expense, clerk, \$48.50; lowest, laborer, \$20.90. Average number rooms rented, 2½; monthly rent per room, \$2.30. Average price of fresh meat per pound, 10½ cents; coal per ton, \$4.38; wood per cord, \$5.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	11	52	4 8/11	
Persons employed.....	11	12		23.07 of all persons reported.
Children at school.....	11	11		36.66 of 30, total number reported
Men's daily wages.....	9	\$11 16	\$1 24	66.66 were below the average.
Women's daily wages.....	1	50	50	
Sons' daily wages.....	2	2 30	1 15	
Days employed, men.....	9	144	16	59.26 of working days.
“ “ women.....	1	20	20	74.07 “ “
“ “ sons.....	2	52	26	96.80 “ “
Men's monthly earnings.....	9	187 45	20 83	72.93 of gross earnings.
Women's monthly earnings.....	1	10 00	10 00	3.87 “ “
Sons' monthly earnings.....	2	59 80	29 90	23.20 “ “
Incomes from other sources.....	1	4 00	4 00	
Aggregate incomes and earnings.....	10	261 25	26 12	68.75 of gross expenses.
Daily income per family.....	11	8 42	77	68.63 were below the average.
Monthly income per person.....	52		5 02	
Daily income per person.....	52		16 3/5	
MONTHLY FAMILY EXPENSES.				
Groceries.....	11	\$165 00	\$15 09	43.42 of gross expenses.
Fresh meat.....	11	44 00	4 00	11.63 “ “
Clothing.....	8	43 90	5 50	11.55 “ “
Fuel.....	11	56 25	5 11	14.80 “ “
Rent.....	6	39 00	6 50	10.26 “ “
Sickness.....	5	10 80	2 16	2.84 “ “
Interest, insurance, taxes.....	2	50	25	0.13 “ “
Education.....	9	7 50	83	2.00 “ “
Society dues.....	1	50	50	0.13 “ “
Sundries.....	9	12 50	1 39	3.24 “ “
Aggregate family expenses.....	11	379 95	34 54	45.48 above gross income.
Daily expenses per family.....	11	12 25	1 11 1/2	45.45 were below the average.
Monthly expenses per person.....	52		7 30	
Daily expenses per person.....	52		23 3/5	
Incomes above expenses.....	1	6 25	6 25	2.39 of gross income.
Expenses above incomes.....	10	125 65	12 56	48.13 more than gross income.
Net deficit.....	11	119 40	10 85	45.74 above gross incomes.

Below the average: 7 family incomes, 5 family expenses, 6 fathers' daily wages.

ATCHISON — CONTINUED.

MONTHLY RETURNS FOR MARCH, 1888.

Six laborers, averaging to family $3\frac{2}{3}$, and daily wages, \$1.45; average days worked (3 idle), 3; averaged $18\frac{1}{3}$ days, 3 clerks, 1 idle, 2 worked 26 days each, averaging \$2.12 per day; average to family 4, and 1 carpenter, 5 in family, idle. Parents, 19; sons, 13; daughters, 7; native-born adults, 16; foreign-born adults, 3. Average age of employed, men, 37; sons, 23; daughters, 17. Average number of hours employed daily: men, $10\frac{1}{2}$; sons, 10; daughters, 10. Paid weekly, 1; monthly 2; had wages withheld, 3, 9 days each; preferred weekly payment of wages, 7; belonged to labor organizations, 10. Had life insurance, 3; amount, \$3,000. Owned homes, 2. Highest daily wages: clerk, \$2.50; lowest, laborer, \$1.38. Highest family income, carpenter, \$73; lowest, laborer, \$17. Highest family expenses: clerk, \$67.05; lowest, laborer, \$31.50. average number of rooms rented, 3; monthly rent per room, \$2.77. Average price of fresh meat per pound, $9\frac{1}{2}$ cents; coal per ton, \$4.35, wood per cord, \$5.75.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in family.....	10	39	$3\frac{2}{3}$	
Persons employed.....	10	11		28.20 of all persons reported.
Children at school.....		1		0.05 of 20, total number reported
Men's daily wages.....	5	\$8 52	\$1 70	60.00 were below the average.
Sons' daily wages.....	5	9 27	1 85	40.00 " " " "
Daughters' daily wages.....	1	33 $\frac{1}{2}$	33 $\frac{1}{2}$	
Days employed, men.....	5	1 07	21 $\frac{2}{3}$	79.26 of working days.
" " sons.....	5	1 17	23 $\frac{2}{3}$	86.66 " " " "
" " daughters.....	1	24	24	88.88 " " " "
Men's monthly earnings.....	5	\$187 90	\$37 58	45.50 of gross earnings.
Sons' monthly earnings.....	5	217 00	43 40	52.56 " " " "
Daughters' monthly earnings.....	1	8 00	8 00	1.94 " " " "
Aggregate incomes and earnings.....	10	412 90	41 29	97.10 of gross expenses.
Daily income per family.....	10	13 32	1 33	40.00 were below the average.
Monthly income per person.....	39		10 58	
Daily income per person.....	39		34 $\frac{1}{8}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	10	\$149 35	\$14 93	35.13 of gross expenses.
Fresh meat.....	9	40 35	4 48	9.49 " " " "
Clothing.....	7	41 00	5 86	9.64 " " " "
Fuel.....	10	51 00	5 10	12.00 " " " "
Rent.....	9	72 00	8 00	16.93 " " " "
Sickness.....	6	44 35	7 39	10.43 " " " "
Interest, insurance, taxes.....	2	9 20	4 60	2.17 " " " "
Education.....	5	6 10	1 22	1.44 " " " "
Society dues.....	2	1 25	2 62	0.29 " " " "
Sundries.....	4	10 60	2 65	2.48 " " " "
Aggregate family expenses.....	10	425 20	42 52	2.98 above gross income.
Daily expenses per family.....	10	13 72	1 37	50.00 were below the average.
Monthly expenses per person.....	39		10 81	
Daily expenses per person.....	39		35	
Incomes above expenses.....	4	56 55	14 14	13.69 of gross income.
Expenses above incomes.....	6	68 85	11 47	16.67 more than gross income.
Net deficit.....	10	12 30	1 23	2.98 above gross income.

Below the average: 4 family incomes, 5 family expenses, 3 father's daily wages.

ATCHISON — CONTINUED.

MONTHLY RETURNS FOR APRIL, 1888.

One car-driver (single), worked 30 days at \$1.27 per day; 1 iron chipper, 4 in family, worked 26 days at \$2; 1 clerk (railroad), 2 in family, 26 days, \$50 per month; 1 railroad laborer (son), 22 days at \$1.35 (4 in family); 1 general laborer, 4 in family, 10½ days at \$1.50; and 1 packer in wholesale house, 2 in family, 26 days for \$40.95. Parents, 9; sons 7; daughters 2; unmarried men, 1; native-born adults, 9; foreign-born adults, 3. Average age of employed: men, 30; sons, 24. Average number of hours employed daily: men, 10½; sons, 10. Paid weekly, 3; semi-monthly, 1; wages withheld, 1; 2 days each; preferred weekly payment of wages, 4; belonged to labor organizations, 7; life insurance, 1; amount, \$2,000. Highest daily wages, painter, \$2.25; lowest, street-car driver, \$1.27. Highest family income, iron-worker, \$52; lowest, laborer, \$22.25. Highest family expense, clerk, \$45.60; lowest, laborer, \$29.55. Average number rooms rented, 3; monthly rent per room, \$2.77. Average price of fresh meat per pound, 10½ cents; coal per ton, \$4.25; wood per cord, \$6.50.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Aver- ages.</i>	<i>Percentages.</i>
Persons in families.....	7	19	2½	
Persons employed.....	7	7	1	36.84 of all persons reported.
Men's daily wages.....	4	\$6 37	\$1 59	50.00 were below the average.
Sons' daily wages.....	3	5 52	1 84	33.33 were below the average.
Days employed, men.....	4	92½	23½	92.50 of working days.
sons.....	3	58	19½	77.32 of working days.
Men's monthly earnings.....	4	\$146 70	\$36 65	58.93 of gross earnings.
Sons' monthly earnings.....	3	102 20	34 06	41.07 of gross earnings.
Incomes from other sources.....	1	6 50	6 50	2.54 of gross incomes.
Aggregate incomes and earnings.....	7	255 40	36 49	17.53 above gross expenses.
Daily income per family.....	7	8 50	1 22	42.86 were below the average.
Monthly income per person.....	19		13 45	
Daily income per person.....	19		44½	
MONTHLY FAMILY EXPENSES.				
Groceries.....	5	\$56 60	\$11 32	26.04 of gross expenses.
Fresh meat.....	5	13 60	2 72	6.26 " "
Clothing.....	4	13 15	3 28	6.05 " "
Fuel.....	3	9 75	3 25	4.49 " "
Rent.....	5	41 50	8 30	19.10 " "
Sickness.....	3	12 75	4 25	5.87 " "
Interest, insurance, taxes.....	1	1 00	1 00	0.46 " "
Education.....	4	4 20	1 05	1.93 " "
Society dues.....	3	3 75	1 25	1.72 " "
Boarding.....	2	34 00	17 00	15.65 " "
Sundries.....	3	27 00	9 00	12.43 " "
Aggregate family expenses.....	7	217 30	31 04	85.08 of gross income.
Daily expense per family.....	7	7 24	1 03	57.14 were below the average.
Monthly expenses per person.....	19		11 43	
Daily expense per person.....	19		38, 1/10	
Incomes above expenses.....	4	50 55	12 64	19.79 of gross income.
Expenses above incomes.....	3	12 45	4 15	4.87 more than gross income.
Net surplus.....	7	38 10	5 44	14.92 above gross income.

Below the average: 3 family incomes; 4 family expenses; 2 father's daily wages.

ATCHISON — CONTINUED.

MONTHLY RETURNS FOR MAY, 1888.

One blacksmith (single) worked 28 days at \$2.25; 1 brakeman, 3 in family, worked 30 days at \$1.80; 2 carpenters, averaging $6\frac{1}{2}$ in family, worked an average of 23 days at \$2.50; 1 stationary engineer, 4 in family, worked 27 days at \$2; 3 laborers, averaging $5\frac{1}{2}$ in family, worked an average of 24 days, at \$1.58; 1 machinist, 3 in family, worked 26 days at \$2.50, and 1 teamster (single) worked 26 days at \$1.54. Parents, 16; sons, 12; daughters, 11; unmarried men, 2; native-born adults, 12; foreign-born adults, 6. Average age of employed: men, 33; sons, 19. Average number of hours employed daily: men, $10\frac{1}{3}$; sons, 10. Paid weekly, 7; monthly, 3; had wages withheld, 2; 17 days each; preferred weekly payment of wages, 10. Belonged to labor organizations, 10; engaged in strike, 1; had life insurance, 4; amount, \$3,250; average, —; had weekly benefits, 2; amount, \$11; average, —. Owned homes, 3; homes mortgaged, 1; aggregate amount, \$450; annual interest, 10 per cent. Highest daily wages, carpenter, \$2.50; lowest, laborer, \$1.50. Highest family income, laborer, \$105; lowest, laborer, \$30. Highest family expense, laborer, \$87; lowest, laborer, \$38.25. Average number of rooms rented, 3; monthly rent per room, \$2.63. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	No. reported.	Totals.	Averages.	Percentages.
Persons in family.....	10	41	$4\frac{1}{10}$	
Persons employed.....	10	12		29.27 of all persons reported.
Children at school.....		13		56.52 of 23, total number reported
Men's daily wages.....	10	\$19 84	\$1 98	50.00 were below the average.
Sons' daily wages.....	2	\$3 50	1 75	50.00 " " " "
Days employed, men.....	10	256	$25\frac{3}{4}$	94.81 of working days.
" " " sons.....	2	35	$17\frac{1}{2}$	64.81 " " " "
Men's monthly earnings.....	10	\$515 50	\$51 55	89.57 of gross earnings.
Sons' monthly earnings.....	2	60 00	30 00	10.43 " " " "
Incomes from other sources.....	1	1 50	1 50	0.26 of incomes.
Aggregate incomes and earnings.....	10	577 00	57 70	19.63 above gross expenses.
Daily income per family.....	10	18 61	1 86	40.00 were below the average.
Monthly income per person.....	41		14 07	
Daily income per person.....	41		$45\frac{3}{4}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	8	\$119 15	\$14 90	24.91 of gross expenses.
Fresh meat.....	8	31 50	3 94	6.32 " " " "
Clothing.....	10	132 35	13 23	27.44 " " " "
Fuel.....	7	12 00	1 71	2.49 " " " "
Rent.....	7	40 00	5 71	8.29 " " " "
Sickness.....	8	19 00	$2\ 37\frac{1}{2}$	3.94 " " " "
Interest, insurance, taxes.....	6	14 00	$2\ 33\frac{1}{2}$	2.90 " " " "
Education.....	9	19 05	2 11	3.95 " " " "
Society dues.....	8	4 75	59	0.99 " " " "
Boarding.....	3	39 00	13 00	8.09 " " " "
Sundries.....	10	51 50	5 15	10.68 " " " "
Aggregate family expenses.....	10	482 30	48 23	83.59 of gross income.
Daily expenses per family.....	10	15 56	1 55	70.00 were below the average.
Monthly expenses per person.....	41		11 76	
Daily expenses per person.....	41		38	
Incomes above expenses.....	8	109 30	13 66	18.94 of gross income.
Expenses above incomes.....	2	14 60	7 30	2.53 more than gross income.
Net surplus.....	10	94 70	9 47	16.41 of gross incomes.

Below the average: 4 family incomes, 7 family expenses, 5 father's daily wages.

ATCHISON—CONTINUED.

MONTHLY RETURNS FOR JULY, 1888.

Two blacksmiths, average 8.5 persons to family, worked 25 days at \$2.62 per day; 2 brakemen, average 3 to family, 27 days at \$2; 2 carpenters, average 6 to family, 21.5 days at \$2.50; 1 cigarmaker, 5 in family, 25 days at \$2; 3 laborers, average 5 to family, 25.3 days at \$1.43; 2 locomotive engineers, average 3 to family, 30.5 days at \$4; 1 locomotive fireman, 5 in family, 31 days at \$2.25; 3 machinists, average 5.6 to family, 25.7 days at \$2.58; 2 moulders, average 5.5 to family, 23 days at \$2.50; 2 painters, average 4 to family, 25 days at \$2.25; 1 printer, 4 in family, 20 days at \$2.50; 1 street-car driver, 5 in family, 30 days at \$1.36; 1 stationary engineer, 5 in family, 28 days at \$2 per day. Parents, 45; sons, 35; daughters, 27; other persons, 1. Native-born adults, 34; foreign-born adults, 11. Average age of employed, men, 35.7; sons, 18. Average number of hours employed daily, men, 9.4. Paid weekly, 16; semi-monthly, 2; monthly, 5; had wages withheld, 5—16 days each; preferred weekly payment of wages, 6. Belonged to labor organizations, 14. Had life insurance, 14; amount, \$25,500; had weekly benefits, 10; average amount, \$7. Owned homes, 7; homes mortgaged, 4; aggregate amount, \$1,300; annual interest, 8.5 per cent. Highest daily wages, locomotive engineer, \$4; lowest, street-car driver, \$1.36. Highest family income, locomotive engineer, \$124; lowest, laborer, \$33.60. Highest family expense, locomotive engineer, \$83; lowest, laborer, \$15. Average number rooms rented, 2.9; monthly rent per room, \$2.89.

	No. reported.	Tota's.	Averages.	Percentages.
Persons in families.....	23	108	4.7	24.00 of all persons reported.
Persons employed.....	23	26	\$2 34	43.48 were below the average.
Men's daily wages.....	23	\$53 91	1 17	33.33
Sons' daily wages.....	3	3 52	25 ² / ₁₀	98.00 of working days.
Days employed, men.....	23	586	25 ² / ₁₀	98.71
" sons.....	3	77	25 ² / ₁₀	93.91 of gross earnings.
Men's monthly earnings.....	23	\$1,387 15	\$60 31	6.09
Sons' monthly earnings.....	3	90 00	30 00	1.35 of gross incomes.
Incomes from other sources.....	3	20 00	6 33	26.79 above gross expenses.
Aggregate incomes and earnings	23	1,497 15	65 09	65.21 were below the average.
Daily income per family.....	23	.....	2 10	.....
Monthly income per person.....	108	.....	13 86	.....
Daily income per person.....	108	.....	44 ⁷ / ₁₀	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	21	\$332 00	\$15 81	28.12 of gross expenses.
Fresh meat.....	21	89 55	4 26	7.53
Clothing.....	23	160 75	6 94	13.61
Fuel.....	20	26 25	1 31	2.22
Rent.....	14	118 50	8 47	10.03
Sickness.....	21	61 25	2 91	5.18
Interest, insurance, taxes.....	15	22 65	1 51	1.92
Education.....	23	70 50	3 06	5.98
Society dues.....	16	31 50	1 97	2.67
Boarding.....	5	102 00	20 40	8.64
Sundries.....	23	165 80	7 21	14.05
Aggregate family expenses.....	23	1,180 75	51 34	78.87 of gross income.
Daily expenses per family.....	23	.....	1 66	65.21 were below the average.
Monthly expenses per person.....	108	.....	10 93	.....
Daily expenses per person.....	108	.....	35 ³ / ₁₀	.....
Incomes above expenses.....	22	317 40	14 43	21.20 of gross income.
Expenses above incomes.....	1	1 00	1 00	0.07 more than gross income.
Net surplus.....	23	316 40	14 38	21.13 of gross incomes.

Below the average: 15 family incomes, 15 family expenses, 10 father's daily wages.

ATCHISON—CONTINUED.

MONTHLY RETURNS FOR AUGUST, 1888.

Two blacksmiths, average $6\frac{1}{2}$ persons to family, worked 25.5 days, at \$2.62 per day; 3 railroad brakemen, average 5.3 to family, 29.7 days, at \$1.90; 1 street-car driver, 3 in family, 31 days, at \$1.16; 13 carpenters, average 7.3 to family, 25 days, at \$2.42; 2 car repairers, average 4.5 to family, 30.5 days, at \$1.55; 5 laborers, average 6.4 to family, 26.4 days, at \$1.48; 4 locomotive engineers, average 5.2 to family, 29.7 days, at \$3.25; 2 machinists, average 6 to family, 26 days, at \$2.62; 1 moulder, 6 in family, 20 days, at \$2.75; 3 printers, average 3.3 to family, 24.7 days, at \$2.58; 1 stationary engineer, 5 in family, 27 days, at \$2; 1 railroad switchman, 6 in family, 30 days, at \$2.25. Parents, 52; sons, 41; daughters, 51; other persons, 10; unmarried men, 1; native-born adults, 38; foreign-born adults, 15. Average age of employed, men, 36.9; sons, 18.2. Average number of hours employed daily, men, 10.1. Paid weekly, 15; semi-monthly, 1; monthly, 12; had wages withheld, 12, 16 days each; preferred weekly payment of wages, 13; belonged to labor organizations, 17; had life insurance, 19; amount, \$31,500; had weekly benefits, 7; average amount, \$10.71; owned homes, 12; homes mortgaged, 4; aggregate amount, \$1,400; annual interest, 9 per cent.; had personal property mortgaged, 1; monthly interest, 10 per cent. Highest daily wages, locomotive engineers, \$4; lowest, street-car driver, \$1.16. Highest family income, locomotive engineer, \$124; lowest, car driver, \$36. Highest family expense, laborer, \$91; lowest, laborer, \$22.75. Average number rooms rented, 3; monthly rent per room, \$2.95.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	28	155	5½	
Persons employed.....	28	33		21.29 of all persons reported.
Men's daily wages.....	28	\$62 91	\$2 24	42.00 were below the average.
Sons' daily wages.....	5	6 67	1 33	40.00 " " " " " "
Days employed, men.....	28	761	27½	0.66 more than the work'g days.
sons.....	5	113	22½	83.70 of working days.
Men's monthly earnings.....	28	\$1,698 55	\$60 66	92.08 of gross earnings.
Sons' monthly earnings.....	5	146 00	29 20	7.92 " " " "
Incomes from other sources.....	2	70 00	35 00	3.65 of gross incomes.
Aggregate incomes and earnings.....	28	1,914 55	68 37	28.32 above gross expenses.
Daily income per family.....	28		2 20	64.00 were below the average.
Monthly income per person.....	155		12 35	
Daily income per person.....	155		39½	
MONTHLY FAMILY EXPENSES.				
Groceries.....	27	\$452 50	\$16 76	30.33 of gross earnings.
Fresh meat.....	27	143 00	5 30	9.59 " " " "
Clothing.....	28	224 25	8 01	15.02 " " " "
Fuel.....	20	35 25	1 76	2.37 " " " "
Rent.....	16	144 50	9 03	9.69 " " " "
Sickness.....	27	74 75	2 77	5.01 " " " "
Interest, insurance, taxes.....	19	28 45	1 50	1.91 " " " "
Education.....	28	86 00	3 07	5.76 " " " "
Society dues.....	15	23 50	1 56	1.55 " " " "
Boarding.....	6	54 00	9 00	3.62 " " " "
Sundries.....	28	225 75	8 06	15.13 " " " "
Aggregate family expenses.....	28	1,491 95	53 28	77.93 of gross income.
Daily expenses per family.....	28		1 72	53.00 were below the average.
Monthly expenses per family.....	155		9 62	
Daily expenses per family.....	155		31	
Incomes above expenses.....	26	438 85	16 88	22.92 of gross income.
Expenses above incomes.....	2	16 25	8 12	0.85 more than gross income.
Net surplus.....	28	422 60	15 09	22.07 of gross incomes.

Below the average, 18 family incomes, 15 family expenses, 12 father's daily wages.

ATCHISON—CONTINUED.

MONTHLY RETURNS FOR SEPTEMBER, 1888.

Two bakers, average 5 persons to family, worked 23 days at \$2.50 per day; 2 brick-makers, average 6 to family, 25 days at \$2; 1 broom-maker, 2 in family, 25 days at \$2; 1 carriage-maker, 6 in family, 26 days at \$2; 4 carpenters, average 4.2 to family, 24.5 days at \$2.44; 2 cigar-makers, average 5 to family, 25.5 days at \$2; 2 coopers, average 6.5 to family, 26 days at \$2.50; 1 harness-maker, 6 in family, 26 days at \$3; 4 laborers, average 6.2 to family, 24.5 days at \$1.52; 1 locomotive engineer, 6 in family, 30 days at \$4; 2 machinists, average 5 to family, 25 days at \$2.62; 2 printers, average 4.5 to family, 26 days, at \$2.25; 1 stationary engineer, 4 in family, 30 days at \$2.50 per day. Parents, 47; sons, 46; daughters, 36; other persons, 5. Native-born adults, 36; foreign-born adults, 11. Average age of employed: men, 39; sons, 18. Average number of hours employed daily: men, 9.9. Paid weekly, 22; monthly 3; had wages withheld, 1, 16 days; preferred weekly payment of wages, 3. Belonged to labor organizations, 11. Had life insurance, 15; amount, \$27,500; had weekly benefits, 5; average amount, \$6.20. Owned homes, 11; homes mortgaged, 5; aggregate amount, \$1,200; annual interest, 8.8 per cent. Highest daily wages, locomotive engineer, \$4; lowest, laborer, \$1.50. Highest family income, cooper, \$168; lowest, laborer, \$36. Highest family expense, cooper, \$120; lowest, laborer, \$30.50. Average number rooms rented, 3.4; monthly rent per room, \$2.57.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	25	134	5.36	
Persons employed.....	25	31		23.00 of all persons reported.
Children at school.....	21	37		45.00 of 82, total number reported
Men's daily wages.....	25	\$57 10	\$2 28	48.00 were below the average.
Sons' daily wages.....	6	8 31	1 38	17.00 " " "
Days employed, men.....	25	634	25.36	84.53 of all days in the month.
" " sons.....	6	146	24.33	97.33 " " "
Men's monthly earnings.....	25	\$1,458 10	\$58 42	87.62 of gross earnings.
Sons' monthly earnings.....	60	206 00	34 33	12.38 " " "
Incomes from other sources.....	1	64 00	64 00	37.00 of gross incomes.
Aggregate incomes and earnings.....	25	1,728 10	69 12	28.23 above gross expenses.
Daily income per family.....	26		2 30	72.00 were below the average.
Monthly income per person.....	134		12 89	
Daily income per person.....	134		42.96	
MONTHLY FAMILY EXPENSES.				
Groceries.....	25	\$419 50	\$16 78	31.13 of gross expenses.
Fresh meat.....	25	140 50	5 62	10.42 " " "
Clothing.....	25	245 00	9 80	18.18 " " "
Fuel.....	20	107 00	5 35	7.94 " " "
Rent.....	13	115 75	8 90	8.59 " " "
Sickness.....	24	72 75	3 03	5.40 " " "
Interest, insurance, taxes.....	16	27 35	1 71	2.03 " " "
Education.....	25	73 75	2 95	5.47 " " "
Society dues.....	7	10 00	1 43	0.74 " " "
Boarding.....	1	15 00	1 12	1.12 " " "
Sundries.....	25	121 00	5 84	8.98 " " "
Aggregate family expenses.....	25	1,347 60	53 90	77.98 of gross income.
Daily expenses per family.....	25		1 79	72.00 were below the average.
Monthly expenses person.....	134		10 05	
Daily expenses per person.....	134		33.4	
Incomes above expenses.....	24	396 25	16 51	22.93 of gross income.
Expenses above incomes.....	1	15 75	15 75	0.91 more than gross income.
Net surplus.....	25	380 50	15 22	22.02 of gross income.

Below the average: 18 family incomes, 18 family expenses, 12 fathers' daily wages.

ATCHISON — CONCLUDED.

MONTHLY RETURNS FOR OCTOBER, 1888.

Two bakers, average 5 persons to family, worked 25.5 days at \$2.25 per day; 2 barbers, average 4 to family, 29.5 days at \$1.48; 1 brakeman, 3 in family, 24 days at \$1.88; 2 cabinet-makers, average 6 to family, 27 days at \$2.37; 3 carpenters, average 7.6 to family, 23.3 days at \$2.42; 1 clerk, 5 in family, 27 days at \$2.41; 1 cigar-maker, 4 in family, 25 days at \$2; 2 harness-makers, average 5.5 to family, 27 days at \$2.12; 4 laborers, average 5.5 to family, 26.2 days at \$1.42; 1 laborer, railroad section, 5 in family, 28 days at \$1.15; 2 locomotive engineers, average 6.5 to family, 31 days at \$3.25; 1 locomotive fireman, 4 in family, 31 days at \$2.08; 2 machinists, average 6 to family, 26.5 days at \$2.62; 1 stationary engineer, 2 in family, 31 days at \$2.58 per day. Parents, 47; sons, 46; daughters, 34. Native-born adults, 38; foreign-born adults, 9. Average age of employed: men, 38.3; sons, 19.3. Average number of hours employed daily, men, 10.3. Paid weekly, 14; semi-monthly, 3; monthly, 8; had wages withheld, 4; 16 days each; preferred weekly payment of wages, 5. Belonged to labor organizations, 15. Had life insurance, 16; amount, \$30,000. Had weekly benefits, 13; average amount, \$6.77. Owned homes, 11; homes mortgaged, 2; aggregate amount, \$600; annual interest, 9 per cent.; had personal property mortgaged, 1; monthly interest, 10 per cent. Highest daily wages: locomotive engineers, \$4; lowest, railroad section laborer, \$1.15. Highest family income: carpenter, \$168; lowest, railroad section laborer, \$32.20. Highest family expense: machinist, \$136.40; lowest, railroad section laborer, \$27.25. Average number of rooms rented, 3.3; monthly rent per room, \$2.74.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	25	134	5 ³ / ₁₀	25.00 of all persons reported.
Persons employed.....	25	31	.....	49.00 of 80, total number reported
Children at school.....	21	39	.....	44.00 were below the average.
Men's daily wages.....	25	\$53 26	\$2 13	50.00 " " " "
Sons' daily wages.....	6	10 35	1 72	99.84 of working days.
Days employed, men.....	25	674	26 ³ / ₁₀	100.00 " " " "
" " sons.....	6	162	27	83.86 of gross earnings.
Men's monthly earnings.....	25	\$1,438 12	\$57 52	16.14 " " " "
Sons' monthly earnings.....	6	276 75	46 12	5.30 of gross incomes.
Incomes from other sources.....	2	96 00	48 00	96.80 of gross expenses.
Aggregate incomes and earnings.....	25	1,810 87	72 43	68.00 were below the average.
Daily income per family.....	25	.....	2 34	.....
Monthly income per person.....	134	.....	13 51	.....
Daily income per person.....	134	.....	43 ⁶ / ₁₀	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	25	\$492 50	\$19 70	25.33 of gross expenses.
Fresh meat.....	24	118 55	4 94	6.34 " " " "
Clothing.....	24	382 25	15 93	20.43 " " " "
Fuel.....	21	161 25	7 68	8.61 " " " "
Rent.....	14	126 00	9 00	6.74 " " " "
Sickness.....	24	72 50	3 02	3.88 " " " "
Interest, insurance, taxes.....	17	47 15	2 77	2.52 " " " "
Education.....	24	50 60	2 11	2.70 " " " "
Society dues.....	16	31 50	1 97	1.68 " " " "
Boarding.....	3	54 00	18 00	2.89 " " " "
Sundries.....	25	334 50	13 38	17.88 " " " "
Aggregate family expenses.....	25	1,870 80	74 43	3.20 above gross income.
Daily expenses per family.....	25	.....	2 40	56.00 were below the average.
Monthly expenses per person.....	134	.....	13 96	.....
Daily expenses per person.....	134	.....	45.	.....
Incomes above expenses.....	13	113 51	8 73	6.25 of gross income.
Expenses above incomes.....	12	173 44	14 45	9.57 more than gross income.
Net deficit.....	25	59 93	2 40	3.31 above gross incomes.

Below the average: 17 family incomes, 14 family expenses, 11 father's daily wages.

BLUE MOUND, LINN COUNTY.

MONTHLY RETURNS FOR JANUARY, 1888.

One teacher with 2 in family worked 20 days at \$3.25 per day; 1 shoemaker, 2 in family, 26 days at \$1.50; 1 photographer, 2 in family, 20 days at \$1.10; laborer, 3 in family, 26 days at \$1.10; 1 laborer, 5 in family, 8 days at \$1.25; 1 laborer, 6 in family, idle; 1 drug clerk, 5 in family, 30 days at 80 cents per day; 1 blacksmith, 6 in family, 10 days at \$2; 1 barber, 3 in family, 26 days at \$1 per day. Parents, 18; sons, 9; daughters, 7. Highest daily wages, teacher, \$3.25; lowest, clerk, 80 cents. Highest family income, teacher, \$65; lowest, laborer, \$10. Highest family expense, teacher, \$52; lowest, shoemaker, \$19.10. Average number of rooms rented, 2½; monthly rent per room, \$1.80. Average price of fresh meat per pound, 9½ cents; coal per ton, \$3.32; wood per cord, \$2.66.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	9	34	3.8	
Persons employed.....	9	9		26.41 of all persons reported.
Children at school.....	7	7		43.75 of 16, total number reported
Men's daily wages.....	8	\$12 00	\$1 50	55.55 were below the average.
Women's daily wages.....	1	57	51	
Days employed, men.....	8	166	20.75	79.81 of working days.
“ “ women.....	1	20	20	77.00 “ “
Men's monthly earnings.....	8	\$234 60	\$29 32	95.75 of gross earnings.
Women's monthly earnings.....	1	10 40	10 40	4.25 “ “
Aggregate incomes and earnings.....	9	245 00	27 22	90.14 of gross expenses.
Daily income per family.....	9		88	44.44 were below the average.
Monthly income per person.....	34		7 21	
Daily income per person.....	34		23.3	
MONTHLY FAMILY EXPENSES.				
Groceries.....	9	\$92 50	\$10 48	34.12 of gross expenses.
Fresh meat.....	8	16 65	2 08	6.12 “ “
Clothing.....	9	50 00	5 55	18.40 “ “
Fuel.....	9	39 67	4 41	14.60 “ “
Rent.....	2	9 00	4 50	3.80 “ “
Sickness.....	7	13 25	1 89	4.83 “ “
Interest, insurance, taxes.....	5	8 82	1 76	3.22 “ “
Education.....	9	27 05	3 00	9.94 “ “
Sundries.....	6	14 85	2 47	5.47 “ “
Aggregate family expenses.....	9	271 79	30 19	9.86 above gross income.
Daily expenses per family.....	9		97	44.44 were below the average.
Monthly expenses per person.....	34		7 96	
Daily expenses per person.....	34		25.3	
Incomes above expenses.....	4	44 39	11 10	18.12 of gross income.
Expenses above incomes.....	5	71 18	14 24	29.05 more than gross earnings.
Net deficit.....	9	26 79	2 97	10.93 above gross incomes.

Below the average: 4 family incomes, 4 family expenses, 5 father's daily wages.

BURLINGAME, OSAGE COUNTY.

MONTHLY RETURNS FOR FEBRUARY, 1888.

Eight coal miners, averaging 7 in family, dug 5,319 bushels of coal, averaging 665 bushels, at an average of 7 cents per bushel; average to each, \$45.96; and in addition, received \$1 per yard for room work, taking out $15\frac{1}{4}$ yards. Employed at piece work, 8, producing 5,319 bushels of coal in 164 days, an average per day per man of $32\frac{1}{2}$ bushels. Parents, 16; sons, 12; daughters, 28; foreign-born adults, 16. Average age of employed: men, 34. Average number of hours employed daily: men, $9\frac{3}{4}$. Paid monthly, 8; had wages withheld, 8; 15 days each; preferred weekly payment of wages, 8. Owned homes, 4; homes mortgaged, 4; aggregate amount, \$1,232; annual interest, 8 per cent. Highest daily wages, \$2.37; lowest, \$2.37. lowest \$31.25. Average number of rooms rented, 4; monthly rent per room, \$1.50. Highest family income, \$64.06; lowest, \$32.61. Highest family expense, \$60.26; Average price of fresh meat per pound, $8\frac{4}{5}$ cents; coal per ton, \$2.75.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	8	56	7	
Persons employed.....	8	8	1	14.28 of all persons reported.
Children at school.....	.....	16	.....	40.00 of 40, total number reported
Men's daily wages.....	8	\$18 97	\$2 37	50.00 were below the average.
Days employed, men.....	8	164	$20\frac{1}{2}$	78.84 of working days.
Men's monthly earnings.....	8	\$382 95	\$47 87	100.00 of gross earnings.
Aggregate incomes and earnings.....	8	382 95	47 87	12.09 above gross expenses.
Daily income per family.....	8	12 76	$1\ 59\frac{1}{2}$	25.00 were below the average.
Monthly income per person.....	56	.....	6 84	.....
Daily income per person.....	56	.....	$22\frac{3}{4}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	8	\$156 94	\$19 62	46.29 of gross expenses.
Fresh meat.....	5	17 45	3 49	5.14 " " "
Clothing.....	5	35 50	7 10	10.47 " " "
Fuel.....	6	20 21	3 37	5.96 " " "
Rent.....	4	24 00	6 00	7.08 " " "
Sickness.....	6	18 00	3 00	5.30 " " "
Interest, insurance, taxes.....	6	28 34	4 72	8.36 " " "
Education.....	4	4 66	1 16	1.37 " " "
Society dues.....	1	3 50	3 50	1.03 " " "
Sundries.....	5	30 50	6 10	9.00 " " "
Aggregate family expenses.....	8	339 10	42 39	88.55 of gross income.
Daily expenses per family.....	8	11 30	1 41	50.00 were below the average.
Monthly expenses per person.....	56	.....	6 05	.....
Daily expenses per person.....	56	.....	$20\frac{1}{6}$	.....
Incomes above expenses.....	6	44 24	7 37	11.85 of gross income.
Expenses above incomes.....	1	34	34	0.09 more than gross income.
Net surplus.....	8	43 90	5 49	11.46 of gross incomes.

Below the average: 2 family incomes, 4 family expenses, 4 father's daily wages.

EMPORIA, LYON COUNTY.

MONTHLY RETURNS FOR FEBRUARY, 1888.

Eight cigarmakers, averaging $2\frac{1}{2}$ in family, daily wages \$2.18, days worked $21\frac{3}{4}$; 2 machinists, 5 in family, daily wages, \$2.65, average days worked (including extra time) $33\frac{1}{2}$; 2 stonecutters, averaging 9 in family, daily wages \$3.50, days worked, $9\frac{3}{4}$. Employed at piece work, 8; producing 37,000 cigars in 171 days, average per day per man, \$2.16. Parents, 16; sons, 12; daughters, 10; other persons, 3; unmarried men, 4; native-born adults, 12; foreign-born adults, 8. Average age of employed: men, 30; Average number of hours employed daily: men, $8\frac{1}{4}$. Paid weekly, 8; monthly, 3. had wages withheld, 2, 17 days each; preferred weekly payment of wages, 4. Belonged to labor organizations, 6. Had life insurance, 6; amount, \$2,000 each. Owned homes, 4; homes mortgaged, 2; aggregate amount, \$450; annual interest, 8 per cent. Highest daily wages, stonecutter, \$3.50; lowest, cigarmaker, \$2. Highest family income, machinist, \$98.05; lowest, cigarmaker, \$30. Highest family expense, machinist, \$74.60; lowest, cigarmaker, \$20. Average number of rooms rented, 3; monthly rent per room, \$2.33. Average price of meat per pound, 10 cents; coal per ton, \$4.40.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	12	45	$3\frac{3}{4}$	
Persons employed.....	11	11	1	24.44 of all persons reported.
Children at school.....		10		45.45 of 22, total number reported
Men's daily wages.....	11	\$26 19	\$2 38	45.45 were below the average.
Days employed, men.....	11	257 $\frac{1}{2}$	$24\frac{1}{2}$	97.33 of working days.
Men's monthly earnings.....	11	\$615 80	\$55 98	100 of gross earnings.
Aggregate incomes and earnings.....	12	615 80	51 32	21.83 above gross expenses.
Daily income per family.....	12	21 23	1 77	41.66 were below the average.
Monthly income per person.....	45		13 68	
Daily income per person.....	45		$47\frac{1}{2}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	8	\$113 60	\$14 20	23.03 of gross expenses.
Fresh meat.....	8	34 13	4 27	6.92 " "
Clothing.....	9	82 46	9 16	16.72 " "
Fuel.....	5	32 30	6 46	6.55 " "
Rent.....	4	28 00	7 00	5.68 " "
Sickness.....	7	10 05	1 43	2.04 " "
Interest, insurance, taxes.....	3	13 55	4 52	2.74 " "
Education.....	6	14 85	2 47	3.01 " "
Society dues.....	5	12 00	2 40	2.43 " "
Boarding.....	5	86 50	17 30	17.53 " "
Sundries.....	11	65 84	5 99	13.35 " "
Aggregate family expenses.....	12	493 28	41 11	80.11 of gross income.
Daily expenses per family.....	12	17 01	1 42	50.00 were below the average.
Monthly expenses per person.....	45		10 96	
Daily expenses per person.....	45		35	
Incomes above expenses.....	9	173 40	19 27	28.15 of gross income.
Expenses above incomes.....	3	50 88	16 96	8.26 more than gross income.
Net surplus.....	12	122 52	10 21	19.89 of gross incomes.

Below the average: 5 family incomes, 6 family expenses, 5 father's daily wages.

FALL RIVER, GREENWOOD COUNTY.

MONTHLY RETURNS FOR NOVEMBER, 1887.

One baker, with 3 in family, worked 30 days at \$1 per day; 1 blacksmith with 3, worked 16 days, at \$2; 1 canvasser with 5, 18 days, at \$2; 2 carpenters, average $3\frac{1}{2}$ to family, 21 days, at \$2; 2 plasterers average, $4\frac{1}{2}$ to family, 18 $\frac{1}{2}$ days, \$2.25 per day. Parents, 14; sons, 6; daughters, 7. Highest daily wages: plasterers, \$3; lowest, baker, \$1. Highest family income: plasterer, \$45; lowest, blacksmith, \$32. Highest family expense: blacksmith, \$35.10; lowest, baker, \$18.80. Average number rooms rented, 3; monthly rent per room, \$1.25. Average price of fresh meat per pound, 9 cents; coal per ton, \$4.59; wood per cord, \$2.50.

	<i>No. reported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	7	27	3 $\frac{8}{10}$	.....
Persons employed.....	7	8	.....	29.63 of all persons reported.
Children at school.....	4	5	.....	38.46 of 13, total number reported
Men's daily wages.....	7	\$13 50	\$1 93	28.57 were below the average.
Women's daily wages.....	1	50	50	.....
Days employed, men.....	7	142 $\frac{1}{2}$	20 $\frac{5}{10}$	78.02 of working days.
Days employed, women.....	1	30	30	100 of working days.
Men's monthly earnings.....	7	\$259 25	\$37 03	94.60 of gross earnings.
Women's monthly earnings.....	1	15 00	15 08	5.40 of gross earnings.
Aggregate incomes and earnings.....	7	274 25	39 18	37.80 above gross expenses.
Daily income per family.....	7	.....	1 31	42.86 were below the average.
Monthly income per person.....	27	.....	10 16	.....
Daily income per person.....	27	.....	33 $\frac{8}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	7	\$76 50	\$10 93	38 of gross expenses.
Fresh meat.....	5	20 60	4 12	10.31 of gross expenses.
Clothing.....	4	17 50	4 38	9 " " "
Fuel.....	7	22 00	3 14	11.06 " " "
Rent.....	4	15 50	3 87	8 " " "
Sickness.....	4	11 75	2 94	5.90 " " "
Interest, insurance, taxes.....	3	8 01	2 67	4.02 " " "
Education.....	4	2 50	62	1.25 " " "
Sundries.....	4	24 80	6 20	12.46 " " "
Aggregate family expenses.....	7	199 16	28 45	72.62 of gross income.
Daily expenses per family.....	7	.....	95	42.86 were below the average.
Monthly expenses per person.....	27	.....	7 37	.....
Daily expenses per person.....	27	.....	24 $\frac{5}{10}$	.....
Incomes above expenses.....	6	78 94	13 16	28.78 of gross income.
Expenses above income.....	1	3 85	3 85	1.40 more than gross income.
Net, surplus.....	7	75 09	10 73	27.38 of gross incomes.

Below the average: 2 family incomes, 3 family expenses, 2 father's daily wages.

FORT SCOTT, BOURBON COUNTY.

MONTHLY RETURNS FOR APRIL, 1888.

Four brakeman, average 4 persons to family, worked $28\frac{1}{2}$ days at \$2.02 per day; 2 cabinet-makers, average $6\frac{1}{2}$ to family, 27 days at \$2.50; 3 carpenters, average $6\frac{1}{2}$ to family, 20 days at \$2.42; 4 laborers, average $5\frac{1}{2}$ to family, $26\frac{1}{2}$ days at \$1.50; 2 painters, 5 to family, 25 days at \$2.25. Parents, 30; sons, 32; daughters, 18. Native-born adults, 21; foreign-born adults, 9. Average age of employed, men, 37.8; sons, 19. Average number of hours employed daily, men, 9.9. Paid weekly, 10; monthly, 4; had wages withheld, 5—16 days each; preferred weekly payments of wages, 15. Belonged to labor organizations, 4. Had life insurance, 11; amount, \$15,000; had weekly benefits, 2; amount, \$4. Owned homes, 8; homes mortgaged, 3; aggregate amount, \$1,000; annual interest, $9\frac{1}{2}$ per cent. Highest daily wages, cabinet-maker, \$2.75; lowest, laborer, \$1.50. Highest family income, cabinet maker, \$128.25; lowest, laborer, \$39. Highest family expenses, cabinet-maker, \$75; lowest, laborer, \$30. Average number rooms rented, 2.7; monthly rent per room, \$2.81. Coal per ton, \$3.94.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	15	80	$5\frac{3}{10}$	.....
Persons employed.....	15	18	.....	22.00 of all persons reported.
Children at school.....	13	28	.....	56.00 of 50, total number reported
Men's daily wages.....	15	\$30 93	\$2 06	46.00 were below the average.
Sons' daily wages.....	3	4 25	1 42	66.00 " " "
Days employed, men.....	15	383	$25\frac{1}{2}$	85.00 of all days in the month.
" " sons.....	3	81	27	90.00 " " "
Men's monthly earnings.....	15	\$780 67	\$52 04	87.18 of gross earnings.
Sons' monthly earnings.....	3	114 75	38 25	12.82 " " "
Aggregate incomes and earnings.....	15	895 42	59 69	26.01 above gross expenses.
Daily income per family.....	15	.....	1 99	46.00 were below the average.
Monthly income per person.....	80	.....	11 19	.....
Daily income per person.....	80	.....	$37\frac{3}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	14	\$208 75	\$14 91	29.66 of gross expenses.
Fresh meat.....	14	62 55	4 47	8.86 " " "
Clothing.....	15	153 50	10 23	21.80 " " "
Fuel.....	12	45 25	3 77	6.43 " " "
Rent.....	6	45 00	7 50	6.40 " " "
Sickness.....	15	58 25	3 88	8.25 " " "
Interest, insurance, taxes.....	10	21 90	2 19	3.06 " " "
Education.....	15	17 30	1 15	2.41 " " "
Society dues.....	11	11 50	1 05	1.62 " " "
Boarding.....	5	39 50	7 90	5.61 " " "
Sundries.....	15	41 50	2 76	5.90 " " "
Aggregate family expenses.....	15	705 00	47 00	78.73 of gross income.
Daily expenses per family.....	15	.....	1 56	60.00 were below the average.
Monthly expenses per person.....	80	.....	8 81	.....
Daily expenses per person.....	80	.....	$29\frac{3}{10}$	.....
Incomes above expenses.....	12	197 42	16 45	22.05 of gross income.
Expenses above incomes.....	3	7 00	2 33	0.78 more than gross income.
Net surplus.....	15	190 42	12 23	21.27 of gross incomes.

Below the average: 7 family incomes, 9 family expenses, 7 father's daily wages.

KANSAS CITY, WYANDOTTE COUNTY.

MONTHLY RETURNS FOR JANUARY, 1888.

Consisting of 6 bricklayers, 1 with no earnings, and 5 with \$5 per day each; average in family, 5½; 5 butchers, 2 earning \$3, and 3 earning \$2.50 per day each; average in family, 5; 5 packing-house employes, 1 earning \$2.25; 2, \$2, and 2, \$1.50 per day each; average in family, 6; 9 carpenters, 8 earning \$2.50, and 1, \$2 per day; average in family, 7; 4 locomotive engineers, 1 earning \$4.90; 1, \$4; 1, \$3.64, and 1, \$3.21 per day; average in family, 6¼; 3 locomotive firemen, 1 earning \$2.68; 1, \$2.34, and 1, \$2.08 per day; 4 printers, 3 earning \$2 and 1 earning \$2.50 per day; average in family, 7; 10 laborers, 6 earning \$1.50; 2, \$1.75, and 2, \$2 per day; average in family, 6¾. Parents, 91; sons, 94; daughters, 62; other persons, 25; native-born adults, 80; foreign-born adults, 11. Average age of employed: men, 37; women, 30; sons, 19; daughters, 17. Average number of hours employed daily: men, 9¼; women, 12; sons, 10; daughters, 12. Paid weekly, 30; semi-monthly, 3; monthly, 5; had wages withheld, 6—15 days each; preferred weekly payment of wages, 35. Belonged to labor organizations, 19; engaged in strike, 1; locked out, 1; had life insurance, 20; amount, \$40,000; had weekly benefits, 20; amount, \$150. Owned homes, 12; homes mortgaged, 7; aggregate amount, \$1,900; annual interest, 9 per cent; had personal property mortgaged, 1; monthly interest, 11 per cent. Highest daily wages, bricklayers, \$5; lowest, laborer, \$1.50. Highest family income, locomotive engineer, \$177.90; lowest, laborer, \$5.25. Highest family expense, carpenter, \$127.50; lowest, laborer, \$19. Average number of rooms rented, 3½; monthly rent per room, \$2.75. Average price of fresh meat per pound, 10½ cents; coal per ton, \$4.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	46	272	6	
Persons employed.....		57		21.00 of all persons reported.
Children at school.....		74		47.74 of 155, total number reported
Men's daily wages.....	46	\$119 60	\$2 60	65.21 were below the average.
Women's daily wages.....	2	2 25	1 12	50.00 " "
Sons' daily wages.....	6	8 50	1 42	50.00 " "
Daughters' daily wages.....	4	3 67	92	25.00 " "
Days employed, men.....	46	680	14½	54.30 of working days.
" " women.....	2	40	20	74.00 " "
" " sons.....	7	123	17½	65.00 " "
" " daughters.....	3	72	24	88.88 " "
Men's monthly earnings.....	46	\$1,752 16	\$38 09	85.30 of gross earnings.
Women's monthly earnings.....	2	45 00	22 50	2.19 " "
Sons' monthly earnings.....	6	169 00	28 17	8.22 " "
Daughters' monthly earnings.....	4	88 00	22 00	4.29 " "
Incomes from other sources.....	15	550 00	36 66	21.12 of incomes and earnings.
Aggregate incomes and earnings.....	46	2,604 16	56 61	.93 above gross expenses.
Daily income per family.....	46	84 00	1 82	52.17 were below the average.
Monthly income per person.....	272		9 57	
Daily income per person.....	272		31	
MONTHLY FAMILY EXPENSES.				
Groceries.....	46	\$726 22	\$15 79	28.11 of gross expenses.
Fresh meat.....	46	185 67	4 03	7.19 " "
Clothing.....	45	403 48	8 96	15.63 " "
Fuel.....	32	185 50	5 80	7.19 " "
Rent.....	31	348 50	11 24	13.51 " "
Sickness.....	39	108 15	2 77	4.19 " "
Interest, insurance, taxes.....	27	203 50	7 54	7.88 " "
Education.....	43	81 68	1 90	3.16 " "
Society dues.....	29	50 50	1 74	1.95 " "
Boarding.....	7	57 00	8 14	2.21 " "
Sundries.....	42	229 50	5 46	8.98 " "
Aggregate family expenses.....	46	2,579 70	56 08	99.06 of gross income.
Daily expenses per family.....	46	83 21	1 81	56.52 were below the average.
Monthly expenses per person.....	272		9 48	
Daily expenses per person.....	272		30.96	
Incomes above expenses.....	21	303 85	14 47	11.66 of gross income.
Expenses above incomes.....	21	279 39	13 30	10.73 more than gross income.
Net surplus.....	46	24 46	53	0.93 of gross incomes.

Below the average: 24 family incomes, 26 family expenses, 30 father's daily wages.

The 6 bricklayers averaged 3 days' work; the 5 butchers, 22; the 9 carpenters, 6; the 4 locomotive engineers, 26½; the 3 firemen, 27½; the 4 printers, 25; the 5 packing-house employes, 23; and the 10 laborers, 8½ days.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR FEBRUARY, 1888.

Consisting of 5 bricklayers, averaging 6 in family, and working an average of 8 days at \$5 per day; 5 butchers, averaging 4 in family, working 22 days each at an average wage of \$2.75; 5 packing-house employes, with 6½ in family, working 23 days each at an average of \$1.85; 9 carpenters, 7 to family, working an average of 13 days, and earning an average of \$2.44; 1 clerk, 6 in family, working 26 days, and earning \$3.21; 3 locomotive engineers, average 6½ to family, working an average of 27 days, and earning \$4.18 per day each; 3 locomotive firemen, 4½ in family, working an average of 27½ days at an average of \$2.37; 13 laborers, 5½ to family, working an average of 9½ days for an average wage of \$1.50; 4 printers, 5 to family, working 25 days each, at an average of \$2.12 per day. Parents, 96; sons, 100; daughters, 64; other persons, 26. Native-born adults, 81; foreign-born adults, 15. Average age of employed, men, 37; women, 38; sons, 18½; daughters, 17. Average number of hours employed daily: men, 9¾; women, 12; sons, 10; daughters, 12. Paid weekly, 33; semi-monthly, 4; monthly, 6; had wages withheld, 6—15 days each; preferred weekly payment of wages, 40. Belonged to labor organizations, 23. Had life insurance, 21; amount, \$41,500; had weekly benefits, 22; amount, \$158. Owned homes, 14; homes mortgaged, 9; aggregate amount, \$2,300; annual interest, 9 per cent.; had personal property mortgaged, 1; monthly interest, 11 per cent. Highest daily wages, bricklayers, \$5; lowest, laborer, \$1.50. Highest family income, engineer, \$168.10; lowest, laborer, \$3. Highest family expense, carpenter, \$129; lowest, laborer, \$10.50. Average number rooms rented, 3½; monthly rent per room, \$2.75. Average price of fresh meat per pound, 10½ cents; coal per ton, \$4.20.

	<i>No. reported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	48	286	6	
Persons employed.....	46	59		20.63 of all persons reported.
Children at school.....	77			47.00 of 164, total number reported
Men's daily wages.....	46	\$122 35	\$2 65	71.74 were below the average.
Women's daily wages.....	3	2 75	92	33.33 " "
Sons' daily wages.....	6	8 50	1 42	50.00 " "
Daughter's daily wages.....	3	2 67	89	33.33 " "
Days employed, men.....	44	759	17½	69.00 of working days.
" " women.....	3	40	13½	53.32 " "
" " sons.....	6	118	19½	78.68 " "
" " daughters.....	3	76	25½	101.32 " "
Men's monthly earnings.....	46	\$2,079 02	\$45 20	88.24 of gross earnings.
Women's monthly earnings.....	3	45 00	15 00	1.91 " "
Sons' monthly earnings.....	6	164 00	27 33	6.96 " "
Daughter's monthly earnings.....	3	68 00	22 66	2.89 " "
Incomes from other sources.....	19	544 00	28 63	18.76 of gross income.
Aggregate incomes and earnings.....	48	2,900 02	60 42	19.83 above gross expenses.
Daily income per family.....	48	100 00	2 08	58.33 were below the average.
Monthly income per person.....	286		10 14	
Daily income per person.....	286		35	
MONTHLY FAMILY EXPENSES.				
Groceries.....	47	\$806 06	\$17 15	33.31 of gross expenses.
Fresh meat.....	46	188 25	4 09	7.78 " "
Clothing.....	41	321 70	7 84	13.29 " "
Fuel.....	26	149 00	5 73	6.15 " "
Rent.....	29	340 50	11 74	14.07 " "
Sickness.....	31	66 80	2 15	2.76 " "
Interest, insurance, taxes.....	21	84 80	4 04	3.50 " "
Education.....	41	99 05	2 41	4.09 " "
Society dues.....	7	11 00	1 57	0.45 " "
Boarding.....	8	72 00	9 00	2.97 " "
Sundries.....	44	281 30	6 39	11.63 " "
Aggregate family expenses.....	48	2,420 46	50 42	83.46 of gross income.
Daily expenses per family.....	48	83 46	1 74	62.50 were below the average.
Monthly expenses per person.....	286		8 46	
Daily expenses per person.....	286		29½	
Incomes above expenses.....	36	568 49	15 79	19.60 of gross income.
Expenses above incomes.....	11	88 93	8 08	3.07 more than gross income.
Net surplus.....	48	479 56	9 99	16.53 of gross incomes.

Below the average: 28 family incomes, 30 family expenses, 33 father's daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR MARCH, 1888.

Six bricklayers, averaging $5\frac{1}{5}$ in family, $9\frac{1}{5}$ days' work each at \$5; 3 butchers, 6 in family, $25\frac{1}{5}$ days each at \$2.75; 5 packing-house employés, 6 in family, $26\frac{2}{5}$ days at \$1.85; 10 carpenters, $6\frac{9}{10}$ in family, $17\frac{9}{10}$ days at \$2.42 $\frac{1}{2}$; 1 clerk, 6 in family, 27 days at \$3.21; 9 laborers, $6\frac{1}{5}$ in family, $19\frac{3}{5}$ days at \$1.72; 3 locomotive engineers, $6\frac{1}{5}$ in family, 27 days at \$4.18; 3 locomotive firemen, $4\frac{1}{5}$ in family, $27\frac{2}{5}$ days at \$2.37; and 4 printers, $5\frac{1}{5}$ in family, $26\frac{1}{5}$ days at \$2.12. Parents, 44; sons, 91; daughters, 62; other persons, 25; native-born adults, 79; foreign-born adults, 9. Average age of employed: men, 37; women, 36; sons, 18; daughters, 17. Average number of hours employed daily: men, 9 $\frac{1}{2}$; women, 11; sons, 10; daughters, 11. Paid weekly, 24; semi-monthly, 3; monthly, 7; had wages withheld, 11; 15 days each; preferred weekly payment of wages, 35; belonged to labor organizations, 25; had life insurance, 25; amount, \$4,200; had weekly benefits, 26; amount, \$164. Owned homes, 14; homes mortgaged, 6; aggregate amount, \$1,450; annual interest, 9 per cent; had personal property mortgaged, 1; monthly interest, 11 per cent. Highest daily wages, bricklayer, \$5; lowest, laborer, \$1.50. Highest family income, carpenter, \$183.50; lowest, laborer, \$22.50. Highest family expense, carpenter, \$122.50; lowest, laborer, \$22.65. Average number rooms rented, $3\frac{1}{5}$; monthly rent per room, \$3.21. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25; wood per cord, \$6.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	44	222	$5\frac{1}{2}$	
Persons employed.....		55		24.77 of all persons reported.
Children at school.....		71		46.40 of 153, total number reported
Men's daily wages.....	44	\$118 70	\$2 69	72.72 were below the average.
Women's daily wages.....	1	1 00	1 00	
Sons' daily wages.....	7	9 50	1 36	57.14 were below the average.
Daughters' daily wages.....	3	2 67	89	33.33 were below the average.
Days employed, men.....	44	915	20 $\frac{5}{8}$	76.92 of working days.
" " women.....	1	20	20	74.77 " " "
" " sons.....	7	158	22 $\frac{2}{5}$	83.69 " " "
" " daughters.....	3	73	24 $\frac{1}{2}$	90.00 " " "
Men's monthly earnings.....	44	\$2,309 66	\$52 49	88.55 of gross earnings.
Women's monthly earnings.....	1	20 00	20 00	0.77 " " "
Sons' monthly earnings.....	7	214 50	30 64	8.22 " " "
Daughters' monthly earnings.....	3	64 00	21 33	2.46 " " "
Incomes from other sources.....	14	496 00	35 43	15.97 of gross incomes.
Aggregate incomes and earnings.....	44	3,104 16	70 55	20.68 above gross expenses.
Daily income per family.....	44	100 13	2 27	61.36 were below the average.
Monthly income per person.....	222		13 98	
Daily income per person.....	222		45	
MONTHLY FAMILY EXPENSES.				
Groceries.....	44	\$802 50	\$18 24	31.19 of gross expenses.
Fresh meat.....	43	222 44	5 17	8.65 " " "
Clothing.....	44	442 65	10 06	17.20 " " "
Fuel.....	32	167 25	5 22	6.50 " " "
Rent.....	30	340 00	11 33	13.22 " " "
Sickness.....	41	130 25	3 18	5.06 " " "
Interest, insurance, taxes.....	23	75 25	3 27	2.92 " " "
Education.....	38	69 75	1 83	2.71 " " "
Society dues.....	21	26 50	1 26	1.03 " " "
Boarding.....	6	51 00	8 50	1.98 " " "
Sundries.....	44	245 46	5 58	9.54 " " "
Aggregate family expenses.....	44	2,573 05	58 48	82.89 of gross income.
Daily expenses per family.....	44	83 00	1 82	61.36 were below the average.
Income above expenses.....	34	602 68	17 82	19.41 of gross income.
Expenses above incomes.....	9	71 57	7 95	2.31 more than gross income.
Net surplus.....	44	531 11	12 07	17.10 above gross incomes.

Below the average: 27 family incomes, 27 family expenses, 32 father's daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR APRIL, 1888.

Six bricklayers, average $5\frac{1}{2}$ persons to family, worked 19.8 days at \$5 per day; 3 butchers, average $6\frac{2}{3}$ to family, $22\frac{2}{3}$ days, \$2.91; 4 carpenters, average 8 to family, $22\frac{1}{3}$ days, \$2.44; 3 car repairers, average 7 to family, 26 days, \$2.09; 1 clerk, 6 in family, 26 days, \$3.21; 3 locomotive engineers, average $6\frac{1}{2}$ to family, $27\frac{1}{3}$ days, \$4.18; 3 locomotive firemen, average $4\frac{1}{2}$ to family, $27\frac{1}{3}$ days, \$2.37; 13 laborers, average 6.8 to family, 21.9 days, \$1.79; 1 machinist, 7 in family, 26 days, \$2.25; 6 packing-house employes, average $5\frac{2}{3}$ to family, $25\frac{1}{3}$ days, \$1.87; 4 printers, average $5\frac{1}{4}$ to family, $25\frac{1}{2}$ days, \$2.12 per day. Parents, 92; sons, 97; daughters, 74; other persons, 29; unmarried men, 1; native-born adults, 76; foreign-born, 16. Average age of employed: Men, 35.5; women, 36; sons, 18.5; daughters, $17\frac{1}{2}$. Average number of hours employed daily: men, 9.7. Paid weekly, 31; semi-monthly, 3; monthly, 13; had wages withheld, 10—17 days each. Preferred weekly payment of wages, 12. Belonged to labor organizations, 29. Had life insurance, 20; amount, \$39,500; had weekly benefits, 26; average amount, \$7.07. Owned homes, 15; homes mortgaged, 8; aggregate amount, \$2,400; average annual interest, 8.7 per cent.; had personal property mortgaged, 1; monthly interest, 11 per cent. Highest daily wages, bricklayer, \$5; lowest, laborer, \$1.50. Highest family income, carpenter, \$195.50; lowest, laborer, \$30.62. Highest family expenses, carpenter, \$148.25; lowest, packing-house employe, \$31.25. Average number rooms rented, 3.4; monthly rent per room, \$3.13. Coal per ton, \$4.42.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	47	293	6.2	
Persons employed.....	47	57		19.45 of all persons reported.
Children at school.....	39	83		48.53 of 171, total number reported
Men's daily wages.....	47	\$122 89	\$2 61	70.21 were below the average.
Women's daily wages.....	1	1 00	1 00	
Sons' daily wages.....	6	8 25	1 37	50.00 were below the average.
Daughters' daily wages.....	3	2 67	89	33.33 " " "
Days employed, men.....	47	1,110	23 $\frac{2}{3}$	94.46 of working days.
" " women.....	1	22	22	88.00 " " "
" " sons.....	6	133	22 $\frac{1}{2}$	88.66 " " "
" " daughters.....	3	67	22 $\frac{2}{3}$	89.33 " " "
Men's monthly earnings.....	47	\$2,863 02	\$60 91	91.38 of gross earnings.
Women's monthly earnings.....	1	22 00	32 22	0.70 " " "
Sons' monthly earnings.....	6	189 75	31 62	6.06 " " "
Daughters' monthly earnings.....	3	58 35	58 35	1.86 " " "
Incomes from other sources.....	19	579 50	30 50	15.61 of gross income.
Aggregate incomes and earnings.....	47	3,712 62	78 99	31.37 above gross expenses.
Daily income per family.....	47		2 63	61.70 were below the average.
Monthly income per person.....	293		12 67	
Daily income per person.....	293		42 $\frac{1}{2}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	46	\$844 50	\$18 36	29.97 of gross expenses.
Fresh meat.....	46	254 20	5 53	9.02 " " "
Clothing.....	47	520 55	11 08	18.47 " " "
Fuel.....	31	104 00	3 25	3.70 " " "
Rent.....	31	335 50	10 82	11.91 " " "
Sickness.....	42	109 50	2 61	3.88 " " "
Interest, insurance, taxes.....	21	124 00	5 90	4.40 " " "
Education.....	46	101 65	2 21	3.60 " " "
Society dues.....	34	69 50	2 04	2.46 " " "
Boarding.....	8	82 80	10 35	2.93 " " "
Sundries.....	46	272 23	5 92	9.66 " " "
Aggregate family expenses.....	47	2,818 43	59 96	75.91 of gross income.
Daily expenses per family.....	47		1 99	59.57 were below the average.
Monthly expenses per person.....	293		9 62	
Daily expenses per person.....	293		32	
Incomes above expenses.....	42	920 56	21 90	24.79 of gross income.
Expenses above incomes.....	5	26 27	5 25	0.70 more than gross income.
Net surplus.....	47	894 29	19 02	24.09 of gross incomes.

Below the average: 29 family incomes, 28 family expenses, 33 fathers' daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR MAY, 1888.

Four blacksmiths, averaging $4\frac{1}{4}$ in family, daily wages \$2.69, days worked $24\frac{1}{2}$; 4 bricklayers, 5 in family, daily wages \$5, $19\frac{1}{2}$ days worked; 9 packing-house employes, $5\frac{5}{8}$ in family, daily wages \$2.22, days worked $23\frac{5}{8}$; 11 car-builders and carpenters, $5\frac{7}{11}$ in family, daily wages \$2.39, days worked 24; 4 locomotive engineers, $6\frac{1}{4}$ in family, days worked $26\frac{1}{4}$, daily wages \$3.94; 4 locomotive firemen, 4 in family, daily wages \$2.22, days worked $27\frac{1}{2}$; 10 laborers, $5\frac{1}{5}$ in family, daily wages \$1.62 $\frac{1}{2}$, days worked $24\frac{1}{5}$; 4 machinists, $5\frac{1}{2}$ in family, daily wages \$2.75, days worked $24\frac{1}{2}$; and 3 printers, 4 in family, daily wages \$2.16 $\frac{2}{3}$, days worked $25\frac{2}{3}$. Parents, 103; sons, 109; daughters, 74; other persons, 3; native-born adults, 82; foreign-born adults, 21. Average age of employed: men, 37; women, $35\frac{1}{2}$; sons, 18; daughters, 18. Average number of hours employed daily: men, $9\frac{1}{2}$; women, 10; sons, 10; daughters, 12. Paid weekly, 19; semi-monthly, 3; monthly, 31; wages withheld, 31—15 days each; preferred weekly payment of wages, 45; belonged to labor organizations, 38; had life insurance, 30; amount, \$41,500; had weekly benefits, 21; amount, \$137; owned homes, 17; homes mortgaged, 8; aggregate amount, \$2,300; annual interest, $8\frac{3}{4}$ per cent.; had personal property mortgaged, 1; monthly interest 11 per cent. Highest daily wages, bricklayer, \$5; lowest, laborer, \$1.50. Highest family income, locomotive engineer, \$127.40; lowest, laborer, \$37.50. Highest family expense, printer, \$121.50; lowest, packing-house employe, \$28.50. Average number rooms rented, 3; monthly rent per room, \$3.34. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	53	294	$5\frac{1}{2}$	21.43 of all persons reported.
Persons employed.....		63	$1\frac{1}{3}$	25.13 of 183, total number report'd
Children at school.....		46		64.15 were below the average.
Men's daily wages.....	53	\$135 40	\$2 55	50.00 were below the average.
Women's daily wages.....	2	1 75	$87\frac{1}{2}$	42.86 were below the average.
Sons' daily wages.....	7	9 00	1 29	
Daughters' daily wages.....	1	1 00	1 00	
Days employed, men.....	53	1,286	$24\frac{1}{2}$	89.81 of working days.
" " women.....	2	35	$17\frac{1}{2}$	64.07 of working days.
" " sons.....	7	159	$22\frac{2}{3}$	84.11 of working days.
" " daughters.....	1	15	15	55.55 of working days.
Men's monthly earnings.....	53	\$3,234 58	\$61 03	92.78 of gross earnings.
Women's monthly earnings.....	2	32 50	16 25	0.93 of gross earnings.
Sons' monthly earnings.....	7	203 75	29 11	5.84 of gross earnings.
Daughters' monthly earnings.....	1	15 00	15 00	0.45 of gross earnings.
Incomes from other sources.....	6	133 00	22 17	3.67 of gross incomes.
Aggregate incomes and earnings.....	53	6,618 83	68 26	22.42 above gross expenses.
Daily income per family.....	53	117 37	2 21	62.26 were below the average.
Monthly income per person.....	294		12 30	
Daily income per person.....	294		$39\frac{2}{3}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	51	869 75	17 07	29.42 of gross expenses.
Fresh meat.....	51	238 00	4 47	8.05 " " "
Clothing.....	53	622 00	11 73	21.04 " " "
Fuel.....	37	77 00	2 08	2.64 " " "
Rent.....	34	334 50	9 84	11.31 " " "
Sickness.....	50	125 25	2 50	4.23 " " "
Interest, insurance, taxes.....	22	77 10	3 50	2.60 " " "
Education.....	53	109 15	2 06	3.69 " " "
Society dues.....	26	43 50	1 67	1.47 " " "
Boarding.....	8	106 00	13 25	3.58 " " "
Sundries.....	53	353 75	6 67	11.97 " " "
Aggregate family expenses.....	53	2,956 00	55 77	81.68 of gross income.
Daily expense per family.....	53	95 35	1 80	64.15 were below the average.
Monthly expenses per person.....	294		10 05	
Daily expense per person.....	294		$32\frac{1}{2}$	
Incomes above expenses.....	46	691 35	15 03	19.10 of gross income.
Expenses above incomes.....	7	28 52	4 07	0.78 more than gross income.
Net surplus.....	53	662 83	12 50	18.32 of gross incomes.

Below the average: 33 family incomes, 34 family expenses, 34 father's daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR JUNE, 1888.

Two butchers (packing hands), averaging 5 in family, working an average of 19 days each at an average daily wage of \$2.87½; 2 packing-house employes, 4 in family, working 24 days at \$2.02; 5 carpenters, average 5½ in family, worked 23½ days at \$2.60; 2 car-builders, 7 in family, worked 26 days at \$2.50; 3 car-repairers, 5½ in family, worked 25½ days at \$2.25; 1 clerk, 6 in family, worked 26 days at \$3.21; 4 locomotive engineers, 5½ in family, worked 28½ days at \$4.23; 5 locomotive firemen, 4½ in family, worked 28 days at \$2.39; 6 laborers, 6 in family, worked 25½ days at \$1.58½; 5 machinists, 5½ in family, worked 23½ days at \$2.52; 2 painters, 5½ in family, worked 24 days at \$2.25; 4 printers, 5 in family, worked 25½ days at \$2.19; 3 switchmen, 4½ in family, worked 29½ days at \$2.16½; 1 watchman, 2 in family, worked 26 days at \$2. Parents, 88; sons, 79; daughters, 55; other persons, 14. Native-born adults, 78; foreign-born adults, 10. Average age of employed: men, 37; sons, 19; daughters, 16. Average number of hours employed daily: men, 9½; sons, 10½; daughters, 11. Paid weekly, 21; monthly, 22; had wages withheld, 22—15½ days each; preferred weekly payment of wages, 37. Belonged to labor organizations, 26. Had life insurance, 26; aggregate amount, \$41,833; had weekly benefits, 11; average amount, \$10.50. Owned homes, 17; homes mortgaged, 8; aggregate amount, \$2,200; annual interest, 8 per cent. Highest daily wages: locomotive engineers, \$5.60; lowest, laborer, \$1.50. Highest family income: locomotive engineer, \$183.60; lowest, laborer, \$39. Highest family expense: carpenter, \$174; lowest, printer, \$30. Average number rooms rented, 3½; monthly rent per room, \$3.20. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	45	236	5½	22.03 of all persons reported.
Persons employed.....	.....	52	.....	33.58 of 134, total number reported
Children at school.....	.....	45	.....	48.88 were below the average.
Men's daily wages.....	45	\$110 48	\$2 45½	33.33 " " "
Sons' daily wages.....	6	8 25	1 37½	.....
Daughters' daily wages.....	1	50 50	50	.....
Days employed, men.....	45	1,145	25½	97.88 of working days.
" " sons.....	6	148	24½	94.84 " " "
" " daughters.....	1	20	20	76.92 " " "
Men's monthly earnings.....	45	\$2,796 74	\$62 46	92.94 of gross earnings.
Sons' monthly earnings.....	6	202 50	33 75	6.73 " " "
Daughters' monthly earnings.....	1	10 00	10 00	0.33 " " "
Incomes from other sources.....	4	127 00	31 75	4.04 of gross incomes.
Aggregate incomes and earnings.....	45	3,136 24	69 69	19.79 of gross expenses.
Daily income per family.....	45	104 54	2 32½	71.11 were below the average.
Monthly income per person.....	236	.....	13 29	.....
Daily income per person.....	236	.....	44½	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	45	\$633 40	\$16 30	28.01 of gross expenses.
Fresh meat.....	45	181 00	4 02	6.91 " " "
Clothing.....	45	534 25	11 87	20.41 " " "
Fuel.....	32	49 00	1 53	1.87 " " "
Rent.....	28	297 50	10 62	11.36 " " "
Sickness.....	45	160 55	3 57	6.13 " " "
Interest, insurance, taxes.....	30	57 95	1 93	2.21 " " "
Education.....	44	98 71	2 24	3.77 " " "
Society dues.....	25	40 50	1 62	1.55 " " "
Boarding.....	8	62 25	7 78	2.38 " " "
Sundries.....	44	403 00	9 16	15.40 " " "
Aggregate family expenses.....	45	2,618 11	58 18	83.48 of gross income.
Daily expenses per family.....	45	87 27	1 94	68.88 were below the average.
Monthly expenses per person.....	236	.....	11 09	.....
Daily expenses per person.....	236	.....	37	.....
Incomes above expenses.....	41	554 78	13 53	17.69 of gross income.
Expenses above incomes.....	4	36 65	9 16	1.17 more than gross income.
Net surplus.....	45	518 13	11 51	16.52 of gross incomes.

Below the average: 32 family incomes, 31 family expenses, 22 father's daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR JULY, 1888.

Three blacksmiths, average 5.3 persons in family, worked 24.6 days, at \$2.66 per day; 4 brakemen, average 3.7 persons, 27.3 days, \$1.99; 4 bricklayers, average 6 persons, 23.2 days, \$4.62; 3 butchers, average 6.3 persons, 22.3 days, \$2.75; 5 carpenters, average 5 persons, 23.6 days, \$2.60; 2 harness-makers, average 5.5 persons, 25 days, \$1.90; 7 laborers, average 4.8 persons, 24.1 days, \$1.53; 2 railroad section-hands, average 4.5 persons, 25 days, \$1.15; 4 locomotive engineers, average 5.5 persons, 27.2 days, \$3.77; 4 locomotive firemen, average 4.7 persons, 26 days, \$2.30; 3 machinists, average 6 persons, 23.6 days, \$2.50; 3 packing-house employes, average 5.7 persons, 26 days, \$2.08; 2 painters, average 4.5 persons, 23.5 days, \$2.12; 2 printers, average 5 persons, 26 days, \$2.25; 1 stationary engineer, 5 persons, 30 days, \$2.25; 1 railroad switchman, 4 persons, 30 days, \$2. Parents, 98; sons, 77; daughters, 76; other persons, 4; native-born adults, 70; foreign-born adults, 28. Average age of employed, men, 35.9; sons, 18.6; daughters, 22. Average number of hours employed daily, men, 9.6 Paid weekly, 23; semi-monthly, 7; monthly 20; had wages withheld, 20—16 days each; preferred weekly payment of wages, 24; belonged to labor organizations, 24. Had life insurance, 27; amount, \$45,000. Had weekly benefits, 16; average amount, \$9.12. Owned homes, 22; homes mortgaged, 11; aggregate amount, \$4,500; annual interest, 8.55 per cent. Highest daily wages, bricklayers, \$5; lowest, section hands, \$1.15. Highest family income, machinist, \$140; lowest, section hands, \$27.60. Highest family expenses, machinist, \$122.25; lowest, section hand, \$21.50. Average number of rooms rented, 3.08; monthly rent per room, \$3.22.

	No. reported.	Totals.	Averages.	Percentages.
Persons in family.....	50	253	5.06	.....
Persons employed.....	50	56		22.13 of all persons reported.
Children at school.....	2	4		2.60 of 153, total number reported
Men's daily wages.....	50	\$123 57	\$2 47	54.00 were below the average.
Sons' daily wages.....	5	8 43	1 68	40.00 " " "
Daughters' daily wages.....	1	1 00	1 00	.....
Days employed, men.....	50	1,251	25.22	92.66 of working days.
" " sons.....	5	123	24.6	91.11 " " "
" " daughters.....	1	20	20	74.07 " " "
Men's monthly earnings.....	50	\$3,067 35	\$61 34	93.09 of gross earnings.
Sons' monthly earnings.....	5	207 50	41 50	6.30 " " "
Daughters' monthly earnings.....	1	20 00	20 00	0.61 " " "
Incomes from other sources.....	2	40 00	20 00	1.19 of gross incomes.
Aggregate incomes and earnings.....	50	3,334 85	66 69	35.00 above gross expenses.
Daily income per family.....	50	.....	2 14	72.00 were below the average.
Monthly income per person.....	253	.....	13 18	.....
Daily income per person.....	253	.....	42.1	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	49	\$750 75	\$15 32	30.39 of gross expenses.
Fresh meat.....	48	179 30	3 74	7.33 " " "
Clothing.....	49	342 50	6 99	13.86 " " "
Fuel.....	41	67 25	1 64	2.72 " " "
Rent.....	26	258 00	9 92	10.44 " " "
Sickness.....	49	140 25	2 86	5.67 " " "
Interest, insurance, taxes.....	32	81 95	2 57	3.31 " " "
Education.....	50	130 50	2 61	5.28 " " "
Society dues.....	27	59 50	2 20	2.40 " " "
Boarding.....	11	116 25	10 57	4.70 " " "
Sundries.....	50	344 00	6 80	13.90 " " "
Aggregate family expenses.....	50	2,470 25	49 40	74.07 of gross income.
Daily expenses per family.....	50	.....	1 59	58.00 were below the average.
Monthly expenses per person.....	253	.....	9 76	.....
Daily expenses per person.....	253	.....	31.1	.....
Incomes above expenses.....	45	875 93	19 57	26.26 of gross income.
Expenses above incomes.....	5	11 33	2 27	0.33 more than gross income.
Net surplus.....	50	864 60	17 29	25.93 of gross incomes.

Below the average: 36 family incomes, 29 family expenses, 27 father's daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR AUGUST, 1888.

Three blacksmiths, averaging 6.7 persons to family, worked 27 days, at \$2.75 per day; 2 brakemen, averaging 5 to family, 31 days, at \$1.86; 5 bricklayers, averaging 6.4 to family, 24.6 days, at \$4.80; 3 butchers, packing house, averaging 5.7 to family, 25.7 days, at \$2.58; 2 car-builders, averaging 6 to family, 27 days, at \$2.40; 4 carpenters, averaging 4.5 to family, 24.5 days, at \$2.62; 5 clerks, averaging 5.2 to family, 27 days, at \$2.86; 5 laborers, averaging 5 to family, 23.8 days, at \$1.57; 3 laborers, railroad section, averaging 4.3 to family, 27 days, at \$1.15; 5 locomotive engineers, averaging 5.6 to family, 29.8 days, at \$3.76; 2 locomotive firemen, averaging 3.5 to family, 29.5 days, at \$2.12; 5 machinists, averaging 6.8 to family, 25.8 days, at \$2.69; 1 packing-house employé, 6 in family, 27 days, at \$2; 3 painters, averaging 5 to family, 26 days, at \$2.75; 2 stone-cutters, averaging 7.5 to family, 26 days, at \$3.60; 2 stonemasons, averaging 6.5 to family, 23 days, at \$3.50; 2 switchmen, averaging 5.5 to family, 31 days, at \$2.27 per day. Parents, 104; sons, 96; daughters, 84; other persons, 19; native-born adults, 85; foreign-born adults, 19. Average age of employed, men 37.4; sons, 18.8. Average number of hours employed daily, men, 9.6. Paid weekly, 23; semi-monthly, 7; monthly, 24; had wages withheld, 20—16 days each; preferred weekly payment of wages, 29; belonged to labor organizations, 32; had life insurance, 33; amount, \$70,500; had weekly benefits, 20; average amount, \$11.05. Owned homes, 19; homes mortgaged, 10; aggregate amount, \$2,850; annual interest, 8.4 per cent. Highest daily wages, bricklayers, \$5; lowest, railroad section hands, \$1.15. Highest family income, machinist, \$188; lowest, railroad section hands, \$31.05. Highest family expense, machinist, \$148.70; lowest, railroad section hand, \$21. Average number rooms rented, 3.6; monthly rent per room, \$3.24.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	54	303	5.6	
Persons employed.....	54	59		19 of all persons reported.
Men's daily wages.....	54	\$149 38	\$2 76	59 were below the average.
Sons' daily wages.....	5	7 96	1 59	20 " " " "
Days employed, men.....	54	1,442	26.7	98.76 of working days.
" " sons.....	5	134	26.8	99.25 " " "
Men's monthly earnings.....	54	\$9,947 99	\$73 11	94.87 of gross earnings.
Sons' monthly earnings.....	5	213 55	42 71	5.13 " " "
Incomes from other sources.....	4	168 00	42 00	3.88 of gross income.
Aggregate incomes and earnings.....	54	4,329 54	80 18	37.38 above gross expenses.
Daily income per family.....	54		2 59	63 were below the average.
Monthly income per person.....	303		14 29	
Daily income per person.....	303		46.1	
MONTHLY FAMILY EXPENSES.				
Groceries.....	54	\$961 72	\$17 81	30.45 of gross expenses.
Fresh meat.....	54	276 01	5 11	8.74 " " "
Clothing.....	54	515 75	9 55	16.33 " " "
Fuel.....	50	143 00	2 86	4.53 " " "
Rent.....	35	411 00	11 74	13.01 " " "
Sickness.....	51	165 56	3 25	5.24 " " "
Interest, insurance, taxes.....	33	55 63	1 69	1.76 " " "
Education.....	54	172 45	3 19	5.46 " " "
Society dues.....	19	46 50	2 45	1.47 " " "
Boarding.....	7	68 00	9 71	2.15 " " "
Sundries.....	53	343 00	6 47	10.86 " " "
Aggregate family expenses.....	54	3,158 64	58 49	72.96 of gross income.
Daily expenses per family.....	54		1 89	59 were below the average.
Monthly expenses per person.....	303		10 42	
Daily expenses per person.....	303		35.3	
Incomes above expenses.....	51	1,195 16	23 43	27.60 of gross income.
Expenses above incomes.....	3	24 25	8 08	0.56 more than gross income.
Net surplus.....	54	1,170 91	21 68	27.04 above gross incomes.

Below the average: 34 family incomes, 32 family expenses, 32 fathers' daily wages.

KANSAS CITY—CONTINUED.

MONTHLY RETURNS FOR SEPTEMBER, 1888.

Three brakemen, averaging 3.7 persons to family, worked 29 days, at \$1.95 per day; 4 bricklayers, averaging 6.2 to family, worked 23.2 days at \$4.87; 3 butchers, averaging 6.3 to family, 25.3 days at \$2.75; 5 carpenters, averaging 5.2 to family, 24.4 days at \$2.50; 2 harnessmakers, averaging 5 to family, 25.5 days at \$1.83; 6 laborers, averaging 4.7 to family, 23.7 days at \$1.79; 3 laborers (railroad section), averaging 3.3 to family, 26 days at \$1.15; 3 locomotive engineers, averaging 6 to family, 28.7 days, at \$4.06; 3 locomotive firemen, averaging 3 to family, 29 days at \$2.19; 6 machinists, averaging 5.5 to family, 24 days at \$2.53; 3 painters, averaging 5.2 to family, 25.3 days at \$2.42; 3 printers, averaging 2 to family, 25.3 days at \$2.45; 2 stationary engineers, averaging 4.5 family, 27 days at \$2; 2 stonemasons, averaging 9 to family, 24 days at \$3.25; 3 switchmen (railroad), averaging 5 to family, 29.3 days at \$2.25; 2 watchmen, averaging 5.5 to family, 30 days at \$1.75 per day. Parents, 102; sons, 84; daughters, 84; other persons, 8. Native-born adults, 82; foreign-born adults, 20. Average age of employed: men, 37.3; women, 36; sons, 17.5. Average number of hours employed: men, 9.7. Paid weekly, 30; semi monthly, 2; monthly, 21; had wages withheld, 21—16 days each; preferred weekly payment of wages, 24. Belonged to labor organizations, 30. Had life insurance, 30; amount, \$5,800. Had weekly benefits, 16; average amount \$12. Owned homes, 21. Homes mortgaged, 7; aggregate amount, \$2,050; annual interest 8.4 per cent. Highest daily wages, bricklayer, \$5; lowest, laborer (railroad section), \$1.15; highest family income, stonemason, \$1.80; lowest, laborer (railroad section), \$29.90; highest family expense, stonemason, \$145.40; lowest, laborer (railroad section), \$22; average number rooms rented, 2.9; monthly rent per room, \$3.04; coal per ton, \$3.75.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	53	276	5 $\frac{2}{15}$	
Persons employed.....	53	56		20 of all persons reported.
Children at school.....	5	9		5.42 of 166, total number reported
Men's daily wages.....	53	\$134 29	\$2 53	73.00 were below the average.
Women's daily wages.....	53		1 00	
Sons' daily wages.....	1	3 25	1 62	
Days employed, men.....	53	13 68	25 $\frac{8}{10}$	50.00 were below the average.
“ “ women.....	53	8	8	86.00 of all working days in m'nth
“ “ sons.....	1	50	25	32.00 of working days.
Men's monthly earnings.....	53	\$3,415 14	\$64 44	100.00 “ “
Women's monthly earnings.....	53	8 00	8 00	97.46 of gross earnings.
Sons' monthly earnings.....	1	81 00	40 50	23.00 “ “
Incomes from other sources.....	2	99 00	33 00	2.31 “ “
Aggregate incomes and earnings.....	3	3,603 14	67 98	2.75 of gross incomes.
Daily income per family.....	53		2 19	24.12 above gross expenses.
Monthly income per person.....	53		13 05	77.00 were below the average.
Daily income per person.....	276		42 $\frac{1}{10}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	53	\$808 40	\$15 25	27.85 of gross expenses.
Fresh meat.....	53	277 50	5 23	9.56 “ “
Clothing.....	53	439 30	8 29	15.13 “ “
Fuel.....	50	321 75	6 43	11.09 “ “
Rent.....	32	280 00	8 75	9.65 “ “
Sickness.....	53	171 25	3 23	5.90 “ “
Interest, insurance, taxes.....	30	46 70	1 55	1.61 “ “
Education.....	51	128 40	2 52	4.42 “ “
Society dues.....	30	39 50	1 32	1.56 “ “
Boarding.....	10	104 50	10 45	3.59 “ “
Sundries.....	53	285 65	5 39	9.84 “ “
Aggregate family expenses.....	53	2,902 95	54 77	80.57 of gross income.
Daily expenses per family.....	53		1 77	58.00 were below the average.
Monthly expenses per person.....	276		10 52	
Daily expenses per person.....	276		33 $\frac{1}{10}$	
Incomes above expenses.....	49	752 26	15 35	20.87 of gross income.
Expenses above incomes.....	4	52 07	13 02	1.44 more than gross income.
Net surplus.....	53	700 19	13 21	19.43 above gross incomes.

Below the average: 41 family incomes, 31 family expenses, 39 father's daily wages.

KANSAS CITY—CONCLUDED.

MONTHLY RETURNS FOR OCTOBER, 1888.

Two barbers, average 4 persons to family, worked 30.5 days at \$1.90 per day; 3 butchers, average 5.3 to family, 27 days at \$2.58; 1 conductor (cable car), 2 in family, 24 days at \$2.50; 1 carpenter, 7 in family, 27 days at \$2.75; 3 laborers, average 5 to family, 24.3 days at \$1.66; 4 laborers (railroad section), average 4.2 to family, 27 days at \$1.15; 10 machinists, average 6.1 to family, 25.9 days at \$2.60; 5 moulders, average 5.4 to family, 24 days at \$2.55; 5 painters, average 5.4 to family, 25.8 days at \$2.20; 5 printers, average 4.8 to family, 26.6 days at \$2.35; 6 stonemasons, average 7.6 to family, 24.3 days at \$3.08 per day. Parents, 88; sons, 92; daughters, 55; other persons, 7. Native-born adults, 68; foreign-born adults, 20. Average age of employed: men, 37; boys, 18.7. Average number of hours employed daily: men, 10.1. Paid weekly, 26; semi-monthly, 10; monthly, 9; had wages withheld 5—18 days each; preferred weekly payment of wages, 9; belonged to labor organizations, 20; had life insurance, 24; amount, \$44,500; had weekly benefits, 7; average amount, \$5.57; owned homes, 19; homes mortgaged, 8; aggregate amount, \$2,650; annual interest, 8.3 per cent. Highest daily wages, stonemason, \$3.25; lowest, railroad section laborer, \$1.15. Highest family income, machinist, \$125.25; lowest, railroad section laborer, \$31.05. Highest family expense, machinist, \$101.50; lowest, railroad section laborer, \$25.25. Average number rooms rented, 3.3; monthly rent per room, \$3.06.

	No. reported.	Totals.	Averages.	Percentages.
Persons in family.....	45	242	5 ⁴ / ₁₀	.....
Persons employed.....	45	48	.....	19.83 of all persons reported.
Children at school.....	37	79	.....	53.00 of 147, total number reported
Men's daily wages.....	45	\$107 00	\$2 37	33.00 were below the average.
Sons' daily wages.....	3	5 00	1 66	66.00 " " "
Days employed, men.....	45	1,161	25 ⁸ / ₁₀	95.55 of working days.
" " sons.....	3	81	27	100.00 " " "
Men's monthly earnings.....	45	\$2,741 25	\$60 91	85.31 of gross earnings.
Sons' monthly earnings.....	3	135 00	45 00	14.69 " " "
Incomes from other sources.....	1	62 00	62 00	2.11 of incomes.
Aggregate incomes and earnings.....	45	2,938 25	65 29	13.24 above gross expenses.
Daily income per family.....	45	.....	2 11	46.00 were below the average.
Monthly income per person.....	242	.....	12 14	.....
Daily income per person.....	242	.....	39 ² / ₁₀	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	45	\$774 75	\$17 22	29.85 of gross expenses.
Fresh meat.....	45	211 20	4 69	8.14 " " "
Clothing.....	45	588 00	13 07	22.66 " " "
Fuel.....	39	211 00	5 41	8.14 " " "
Rent.....	26	263 50	10 13	10.16 " " "
Sickness.....	45	147 10	3 27	5.67 " " "
Interest, insurance, taxes.....	25	36 60	1 46	1.42 " " "
Education.....	43	90 85	2 11	3.50 " " "
Society dues.....	30	33 00	1 10	1.27 " " "
Sundries.....	45	238 60	5 29	9.19 " " "
Aggregate family expenses.....	45	2,594 60	57 66	88.31 of gross income.
Daily expenses per family.....	45	.....	1 86	51.00 were below the average.
Monthly expenses per person.....	242	.....	10 72	.....
Daily expenses per person.....	242	.....	34 ⁶ / ₁₀	.....
Incomes above expenses.....	34	427 95	12 58	14.56 of gross income.
Expenses above incomes.....	11	84 30	7 67	2.87 more than gross income.
Net surplus.....	45	343 65	7 63	11.69 of gross incomes.

Below the average: 21 family incomes, 23 family expenses, 15 father's daily wages.

LEAVENWORTH.

MONTHLY RETURNS FOR JANUARY, 1888.

Five carpenters, 2 unemployed, 3 averaged 15 days at \$2.75 and 2 at \$2.25 per day; 1 stair-builder, 20 days at \$2.50—the 6 families average $4\frac{1}{2}$ persons; 7 laborers averaged $6\frac{2}{7}$ to family, worked an average of $16\frac{1}{7}$ days at an average wage of \$1.40; 5 miners and 1 mine employé, $5\frac{1}{2}$ (average) in family, 1 idle, 5 worked 21.1 days (average), each earning \$2.21 (average) per day; 2 teamsters, averaging $5\frac{1}{2}$ to family, 1 idle, 1 earning \$3 per day, working 15 days; 1 moulder, 6 in family, idle; and 1 baker, 6 family, worked 26 days at \$2. Parents, 46; sons, 38; daughters, 38. Average age of employed: sons, 18; daughters, 15. Average number of hours employed daily: men, $10\frac{1}{2}$; sons, 12. Highest daily wages, teamster, \$3; lowest, laborer, \$1.25. Highest family income, miner, \$70; lowest, washerwoman, \$2. Highest family expense, miner, \$81.50; lowest, washerwoman, \$17.35. Average number rooms rented, $2\frac{7}{11}$; monthly rent per room, \$2.34. Average price of fresh meat per pound, $8\frac{1}{2}$ cents; coal per ton, \$3.05; wood per cord, \$5.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	23	122	$5\frac{1}{2}$	20.49 of all persons reported.
Persons employed.....		25		46.05 of 76, total number reported
Children at school.....		35		55.55 were below the average.
Men's daily wages.....	18	\$35 53	\$1 97	
Women's daily wages.....	1	62 $\frac{1}{2}$	62 $\frac{1}{2}$	
Sons' daily wages.....	5	35	1 27	60.00 were below the average.
Daughters' daily wages.....	1	15	15	
Days employed, men.....	18	324 $\frac{1}{2}$	18	69.23 of working days.
“ “ women.....	1	4	15.38	“ “
“ “ sons.....	5	105	21	81.77 “ “
“ “ daughters.....	1	28	28	107.69 of all working days.
Men's monthly earnings.....	18	\$647 75	\$35 98	81.46 of gross earnings.
Women's monthly earnings.....	1	2 50	2 50	0.30 “ “
Sons' monthly earnings.....	5	141 00	28 20	17.72 “ “
Daughters' monthly earnings.....	1	4 20	4 20	0.52 “ “
Aggregate incomes and earnings.....	23	795 45	34 59	79.54 of gross expenses.
Daily income per family.....	23	27 43	1 19	43.48 were below the average.
Monthly income per person.....	122		6 52	
Daily income per person.....	122		22 $\frac{1}{2}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	23	\$348 60	\$15 15	34.66 of gross expenses.
Fresh meat.....	22	116 30	5 28	11.56 “ “
Clothing.....	21	121 45	5 78	12.07 “ “
Fuel.....	23	114 65	4 94	11.39 “ “
Rent.....	12	73 00	6 08	7.25 “ “
Sickness.....	17	84 05	4 94	8.35 “ “
Interest, insurance, taxes.....	11	48 36	4 39	4.80 “ “
Education.....	20	31 45	1 57	3.11 “ “
Sundries.....	7	68 90	9 84	6.81 “ “
Aggregate family expenses.....	23	1,006 76	43 77	26.63 above gross income.
Daily expenses per family.....	23	54 71	1 51	60.87 were below the average.
Monthly expenses per person.....	122		8 25	
Daily expenses per person.....	122		28 $\frac{1}{2}$	
Incomes above expenses.....	7	89 35	12 76	11.24 of gross income.
Expenses above incomes.....	16	300 66	18 78	37.82 more than gross income.
Net deficit.....	23	211 31	9 19	26.58 above gross incomes.

Below the average: 19 family incomes, 14 family expenses, 10 father's daily wages.

LEAVENWORTH—CONTINUED.

MONTHLY RETURNS FOR FEBRUARY, 1888.

Four carpenters, 1 unemployed; 3 averaged $9\frac{1}{2}$ days, 1 at \$2 and 2 at \$2.25; the 4 families averaged $5\frac{3}{4}$ persons each; 3 laborers, 2 unemployed, 1 worked 15 days at \$1.25; average to family $3\frac{2}{3}$ persons; 2 coal miners, averaging $10\frac{1}{2}$ days at \$2.50, averaging in family $3\frac{1}{2}$; 1 expressman worked 24 days at 75 cents, 4 in family; 1 moulder worked 12 days at \$2.75, 7 in family; 1 carriage painter with 7 in family worked 13 days at \$2. Parents, 22; sons, 15; daughters, 22. Average number of hours employed daily: men, $10\frac{1}{2}$. Highest daily wages, moulder, \$2.75; lowest, expressman, 75 cents. Highest family income, carpenter, \$36; lowest, carpenter, \$6. Highest family expense, carpenter, \$74.50; lowest, carriage painter, \$21.32. Average number of rooms rented, 3; monthly rent per room, \$2.28. Average price of fresh meat per pound, $9\frac{1}{4}$ cents; coal per ton, \$3.25; wood per cord, \$5.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	12	59	$4\frac{1}{2}$	.....
Persons employed.....	9	9	$\frac{1}{2}$	15.25 of all persons reported.
Children at school.....	.....	19	.....	52.35 of 37, total number reported
Men's daily wages.....	9	\$17 75	\$1 97	22.22 were below the average.
Days employed, men.....	9	113	$12\frac{5}{8}$	50.20 of working days.
Men's monthly earnings.....	9	\$210 50	\$23 39	100.00 of gross earnings.
Aggregate incomes and earnings.....	12	210 50	17 54	45.56 of gross expenses.
Daily income per family.....	12	7 25	$60\frac{1}{2}$	33.33 were below the average.
Monthly income per person.....	59	.....	\$3 57	.....
Daily income per person.....	59	.....	$12\frac{1}{2}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	12	\$213 00	\$17 75	46.10 of gross expenses.
Fresh meat.....	11	58 90	5 35	12.74 " "
Clothing.....	12	65 84	5 49	14.25 " "
Fuel.....	10	46 12	4 61	9.98 " "
Rent.....	3	20 50	6 83	4.40 " "
Sickness.....	9	9 70	1 08	2.09 " "
Interest, insurance, taxes.....	8	8 75	1 09	1.89 " "
Education.....	9	17 15	1 91	3.71 " "
Sundries.....	9	22 50	2 50	4.84 " "
Aggregate family expenses.....	12	462 46	38 54	120.00 above gross income.
Daily expenses per family.....	12	15 95	1 33	50.00 were below the average.
Monthly expenses per person.....	59	.....	7 84	.....
Daily expenses per person.....	59	.....	27	.....
Incomes above expenses.....	2	7 03	3 51	3.34 of gross income.
Expenses above incomes.....	10	258 99	25 89	123.34 more than gross earnings.
Net deficit.....	12	251 96	20 99	120.00 above gross incomes.

Below the average: 4 family incomes, 6 family expenses, 2 father's daily wages.

LEAVENWORTH—CONTINUED.

MONTHLY RETURNS FOR FEBRUARY, 1888.

One bridge carpenter, 3 in family, idle; 3 laborers, averaging $5\frac{1}{2}$ in family, 1 idle, 2 worked an average of $21\frac{1}{2}$ days, at \$1.33; 9 coal miners, averaging $3\frac{2}{3}$ in family, $10\frac{3}{4}$ days, at \$2.29 per day; and 1 driver in coal mine, 3 in family, worked 10 days, at \$2.25. Employed at piece work, 9, producing 4,395 bushels of coal, averaging 488 bushels. Parents, 26; sons, 18; daughters, 21; unmarried men, 1; native-born adults, 11; foreign-born adults, 16. Average age of employed, men, 34; women, 34; sons, 16. Average number of hours employed daily, men, 10; women, 10; sons, 10. Paid semi-monthly, 10; monthly, 2; had wages withheld, 12— $8\frac{5}{8}$ days each; preferred weekly payment of wages, 6; belonged to labor organizations, 13; engaged in strike, 10; locked out, 3. Owned homes, 1. Highest daily wages, coal miner, \$2.30; lowest, railroad section hand, \$1.15. Highest family income, coal miner, \$30.00; lowest, laborer, \$16.66 $\frac{2}{3}$. Highest family expense, miner, 53.24; lowest, miner, \$19.21. Average number rooms rented, $2\frac{1}{2}$; monthly rent per room, \$2.22. Average price of fresh meat per pound, $8\frac{1}{2}$ cents; coal per ton, \$3.24; wood per cord, \$6.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	14	56	4	
Persons employed.....		14		25.00 of all persons reported.
Children at school.....		6		21.43 of 28, total number reported
Men's daily wages.....	12	\$25 51	\$2 13	16.66 were below the average.
Women's daily wages.....	1	1 00	1 00	
Sons' daily wages.....	1	58 $\frac{3}{4}$	58 $\frac{3}{4}$	
Days employed, men.....	12	149	12 $\frac{5}{12}$	50.40 of working days.
“ “ women.....	1	5	5	20.00 “ “
“ “ sons.....	1	20	20	80.00 “ “
Men's monthly earnings.....	12	\$298 85	\$24 90	94.77 of gross earnings.
Women's monthly earnings.....	1	5 00	5 00	1.58 “ “
Sons' monthly earnings.....	1	11 66 $\frac{2}{3}$	11 66 $\frac{2}{3}$	3.71 “ “
Aggregate incomes and earnings.....	14	315 51	22 53	66.70 of gross expenses.
Daily income per family.....	14	10 88	77 $\frac{2}{3}$	42.86 were below the average.
Monthly income per person.....	56		5 63	
Daily income per person.....	56		19 $\frac{2}{3}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	13	\$134 03	\$10 31	28.34 of gross expenses.
Fresh meat.....	13	53 06	4 08	11.21 “ “
Clothing.....	11	74 00	6 73	15.65 “ “
Fuel.....	13	46 84	3 60	9.90 “ “
Rent.....	12	66 55	5 54	14.08 “ “
Sickness.....	8	55 45	6 93	11.71 “ “
Interest, insurance, taxes.....	1	65	65	0.44 “ “
Education.....	7	13 40	1 91	2.83 “ “
Society dues.....	10	5 00	50	1.06 “ “
Boarding.....	1	17 50	17 50	3.70 “ “
Sundries.....	2	6 50	3 25	1.38 “ “
Aggregate family expenses.....	14	472 93	33 78	49.89 above gross income.
Daily expenses per family.....	14	16 31	1 16	57.14 were below the average.
Monthly expenses per person.....	56		8 44	
Daily expenses per person.....	56		29 $\frac{1}{2}$	
Incomes above expenses.....	2	3 66	1 33	1.16 of gross income.
Expenses above incomes.....	12	161 08	13 42	51.05 more than gross income.
Net deficit.....	14	157 42	11 24	49.89 above gross incomes.

Below the average: 6 family incomes, 8 family expenses, 2 father's daily wages.

LEAVENWORTH—CONTINUED.

MONTHLY RETURNS FOR MARCH, 1888.

Four carpenters, average 6 to family, wages \$2.37 per day, worked $17\frac{3}{4}$ days; 1 stationary engineer, 4 in family, \$2 per day, 28 days; 5 laborers, average 6 to family, \$1.50 per day, $22\frac{1}{2}$ days; 1 moulder, 4 in family, 15 days at \$2.75; 1 machinist, 8 in family, 26 days at \$2.75. Parents, 23; sons, 39; daughters, 15. Native-born adults, 20; foreign-born adults, 3. Average age of employed, men, 38.5; sons, 20. Average number of hours employed daily, men, $10\frac{1}{2}$. Paid weekly, 12. Belonged to labor organizations, 1. Had life insurance, 2; amount, \$4,500; had weekly benefits, 2; average amount, \$4.50. Owned homes, 5. Highest daily wages, moulder and machinist, \$2.75 each; lowest, laborer, \$1.25. Highest family income, carpenter, \$126; lowest, laborer, \$27. Highest family expense, carpenter, \$95.50; lowest, carpenter, \$29.75. Average number rooms rented, 2.9; monthly rent per room, \$2.57. Coal per ton, \$3.25.

	<i>No. reported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	12	70	$5\frac{4}{5}$	.....
Persons employed.....	12	14	.....	20.00 of all persons reported.
Children at school.....	11	25	.....	46.30 of 54, total number reported
Men's daily wages.....	12	\$24 50	\$2 04	50.00 were below the average.
Sons' daily wages.....	2	2 50	1 25	50.00 " "
Days employed, men.....	12	251	$20\frac{9}{10}$	80.45 of working days.
sons.....	2	46	23	88.46 " "
Men's monthly earnings.....	12	\$504 15	\$41 98	90.00 of gross earnings.
Sons' monthly earnings.....	2	56 00	28 00	10.00 " "
Incomes from other sources.....	1	50 00	50 00	8.19 of gross incomes.
Aggregate incomes and earnings.....	12	610 15	50 84	14.29 above gross expenses.
Daily income per family.....	12	.....	1 64	67.00 were below the average.
Monthly income per person.....	70	.....	8 71	.....
Daily income per person.....	70	.....	$28\frac{1}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	12	\$194 50	\$16 21	36.51 of gross expenses.
Fresh meat.....	12	54 00	4 50	10.00 " "
Clothing.....	12	106 00	8 83	19.90 " "
Fuel.....	10	35 75	3 57	6.70 " "
Rent.....	7	51 50	7 36	9.65 " "
Sickness.....	12	28 50	2 38	5.35 " "
Interest, insurance, taxes.....	4	11 60	2 90	2.14 " "
Education.....	11	14 00	1 27	2.61 " "
Society dues.....	1	1 50	1 50	0.28 " "
Sundries.....	11	36 50	3 32	6.86 " "
Aggregate family expenses.....	12	533 85	44 49	87.26 of gross income.
Daily expenses per family.....	12	.....	1 43	75.00 were below the average.
Monthly expenses per person.....	70	.....	7 60	.....
Daily expenses per person.....	70	.....	$24\frac{1}{2}$	.....
Income above expenses.....	8	102 20	12 77	16.75 of gross income.
Expenses above incomes.....	4	25 90	6 47	4.00 more than gross income.
Net surplus.....	12	76 30	6 36	12.74 of gross incomes.

Below the average: 8 family incomes, 9 family expenses, 6 father's daily wages.

LEAVENWORTH — CONTINUED.

MONTHLY RETURNS FOR MAY, 1888.

One laborer, with 8 in family, worked 26 days at \$1.50; 5 machinists, averaging $5\frac{2}{3}$ in family, averaged $24\frac{1}{3}$ days at \$2.60 per day; and 10 moulders, averaging $5\frac{1}{2}$ in family, worked an average of $19\frac{1}{3}$ days each at \$2.57 $\frac{1}{2}$. Parents, 31; sons, 37; daughters, 22. Native-born adults, 18; foreign-born adults, 14. Average age of employed: men, 39; sons, 16.5. Average number of hours employed daily: men, 10; sons, 10. Paid weekly, 16; preferred weekly payment of wages, 16. Belonged to labor organizations, 10. Had life insurance, 11; amount, \$1,636. Had weekly benefits, 2; average amount, \$6.50. Owned homes, 7; homes mortgaged, 2; aggregate amount, \$400; annual interest, 9 per cent. Highest daily wages: machinist, \$3; lowest, laborer, \$1.15. Highest family income: moulder, \$168; lowest, moulder, \$25. Highest family expense: moulder, \$79.50; lowest, moulder, \$30.50. Average number of rooms rented, $3\frac{1}{3}$; monthly rent per room, \$2.82. Average price of fresh meat per pound, 10 cents; coal per ton, \$3.50.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	16	90	$5\frac{5}{8}$	.....
Persons employed.....	16	20	$1\frac{1}{4}$	22.22 of all persons reported.
Children at school.....	.....	36	.....	61.02 of 59, total number reported
Men's daily wages.....	16	\$40 25	\$2 52	81.25 were below the average.
Sons' daily wages.....	4	4 75	1 19	50.00 " " "
Days employed, men.....	16	348	$21\frac{3}{4}$	80.55 of working days.
sons.....	4	92	23	85.18 " " "
Men's monthly earnings.....	16	\$876 50	\$54 78	89.25 of gross earnings.
Sons' monthly earnings.....	4	105 50	26 37	10.75 " " "
Incomes from other sources.....	1	5 00	5 00	0.50 of gross incomes.
Aggregate incomes and earnings.....	16	987 00	61 69	25.09 above gross expenses.
Daily income per family.....	16	31 84	1 99	37.50 were below the average.
Monthly income per person.....	90	.....	10 97	.....
Daily income per person.....	90	.....	$35\frac{2}{3}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	16	\$266 50	\$16 65	33.74 of gross expenses.
Fresh meat.....	16	72 25	4 51	9.15 " " "
Clothing.....	16	181 00	11 31	22.92 " " "
Fuel.....	14	21 00	1 50	2.65 " " "
Rent.....	9	79 00	8 78	10.05 " " "
Sickness.....	16	58 00	3 62	7.34 " " "
Interest, insurance, taxes.....	11	17 80	1 62	2.25 " " "
Education.....	16	17 10	1 07	2.16 " " "
Society dues.....	11	6 00	55	0.75 " " "
Sundries.....	16	71 00	4 37	8.99 " " "
Aggregate family expenses.....	16	789 65	49 35	80.00 of gross income.
Daily expenses per family.....	16	25 47	1 59	50.00 were below the average.
Monthly expenses per person.....	90	.....	8 77	.....
Daily expenses per person.....	90	.....	$28\frac{1}{3}$	.....
Incomes above expenses.....	12	222 25	18 52	22.52 of gross income.
Expenses above incomes.....	4	24 90	6 22	2.52 more than gross income.
Net surplus.....	16	197 35	12 33	20.00 above gross incomes.

Below the average: 6 family incomes, 8 family expenses, 13 father's daily wages.

LEAVENWORTH—CONTINUED.

MONTHLY RETURNS FOR JUNE, 1888.

One blacksmith helper, with 4 persons in family, worked 26 days, at \$1.75; 1 brakeman, 3 in family, 27 days, \$2; 3 carpenters, average 5.7 in family, 24 days, \$2.42; 2 cigar-makers, average 5.5 in family, 26 days, \$2.05; 2 laborers, average 7 in family, 26.5 days, \$1.50; 2 machinists, average 4 in family, 26 days, \$2.37; 3 moulders, average 4.7 in family, 13.7 days, \$2.42; 1 painter, 2 in family, 26 days, \$2; 1 printer, 6 in family, 26 days, \$2.25; 1 stationary engineer, 5 in family, 28 days, \$2.00; 1 switchman, 3 in family, 30 days, \$2.00 per day. Parents, 36; sons, 20; daughters, 29; other persons, 2; native-born adults, 21; foreign-born adults, 15. Average age of employed, men, 39.9; women, 37; sons, 19. Average number of hours employed daily, men, 9.7. Paid weekly, 12; semi-monthly, 4; monthly, 2; had wages withheld, 2, 15 days each; preferred weekly payment of wages, 14; belonged to labor organizations, 7; had life insurance, 9; amount, \$12,500; had weekly benefits, 2; amount, \$30.00; owned homes, 5; homes mortgaged, 2; aggregate amount, \$475; annual interest, 10 per cent. Highest daily wages, carpenter and machinist, \$2.50; lowest, laborers, \$1.50. Highest family income, laborer, \$104; lowest, moulder, \$25. Highest family expense, laborer, \$82.70; lowest, moulder, \$30. Average number rooms rented, 2.8; monthly rent per room, \$2.79.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	18	87	4½	
Persons employed.....	18	20		20.69 of all persons reported.
Children at school.....	14	19		38.77 of 49, total number reported
Men's daily wages.....	18	\$38 35	\$2 13	50.00 were below the average.
Women's daily wages.....	1	2 00	2 00	
Sons' daily wages.....	1	1 35	1 35	
Days employed, men.....	18	433	24	92.52 of working days.
“ “ women.....	1	10	10	38.46 “ “
“ “ sons.....	1	26	26	100.00 “ “
Men's monthly earnings.....	18	\$901 60	\$50 09	94.25 of gross earnings.
Women's monthly earnings.....	1	20 00	20 00	2.09 “ “
Sons' monthly earnings.....	1	35 00	35 00	3.65 “ “
Incomes from other sources.....	1	30 00	30 00	3.04 of gross incomes.
Aggregate incomes and earnings.....	18	986 60	54 81	26.47 above gross expenses.
Daily income per family.....	18		1 83	38.88 were below the average.
Monthly income per person.....	87		11 34	
Daily income per person.....	87		37½	
MONTHLY FAMILY EXPENSES.				
Groceries.....	18	\$266 00	\$14 78	34.10 of gross expenses.
Fresh meat.....	18	62 25	3 46	7.98 “ “
Clothing.....	18	119 00	6 61	15.26 “ “
Fuel.....	16	21 25	1 33	2.72 “ “
Rent.....	13	100 50	7 73	8.08 “ “
Sickness.....	18	63 00	3 50	12.89 “ “
Interest, insurance, taxes.....	11	12 20	1 11	1.57 “ “
Education.....	18	28 80	1 60	3.69 “ “
Society dues.....	7	4 25	61	0.54 “ “
Boarding.....	1	4 75	4 75	0.61 “ “
Sundries.....	18	98 00	5 44	12.56 “ “
Aggregate family expenses.....	18	780 00	43 33	79.06 of gross income.
Daily expenses per family.....	18		1 44	55.55 were below the average.
Monthly expenses per person.....	87		8 79	
Daily expenses per person.....	87		29½	
Incomes above expenses.....	17	220 00	12 22	22.30 of gross income.
Expenses above incomes.....	1	13 55	13 55	1.36 more than gross income.
Net surplus.....	18	206 45	11 47	20.94 of gross incomes.

Below the average: 7 family incomes, 10 family expenses, 9 father's daily wages.

LEAVENWORTH—CONTINUED.

MONTHLY RETURNS FOR JULY, 1888.

One blacksmith, 6 persons in family, worked 25 days at \$2.75 per day; 3 carpenters, average 6 in family, 23.3 days, \$2.50; 2 laborers, average 3.5 in family, 25 days, \$1.65; 1 locomotive engineer, 7 in family, 31 days, \$3.65; 1 locomotive fireman, 3 in family, 31 days, \$1.89; 5 machinists, average 5.8 in family, 26 days, \$2.60; 3 moulders, average 5.3 in family, 18.7 days, \$2.66; 1 printer, 7 in family, 26 days, \$2.25; 2 stationary engineers, average 2 in family, 29 days, \$2; 1 stone-mason, 5 in family, 20 days, \$3. Parents, 39; sons, 33; daughters, 31; unmarried men, 1; native-born adults, 25; foreign-born adults, 14. Average age of employed: Men, 37.3; sons, 18.3. Average number of hours employed daily: men, 9.9. Paid weekly, 18; monthly, 2; had wages withheld, 2—16 days each. Preferred weekly payment of wages, 2. Belonged to labor organizations, 7. Had life insurance, 14; amount, \$21,500; had weekly benefits, 14; average amount, \$6.35. Owned homes, 9; homes mortgaged, 4; aggregate amount, \$1,300; annual interest, 8.5 per cent. Highest daily wages, locomotive engineer, \$3.65; lowest, laborer, \$1.50. Highest family income, locomotive engineer, \$123.15; lowest, moulder, \$24. Highest family expenses, locomotive engineer, \$81.75; lowest, laborer, \$28.75. Average number rooms rented, 2.9; monthly rent per room, \$3.01.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	20	103	5 ¹ / ₁₀	.....
Persons employed.....	20	23	.....	22.33 of all persons reported.
Men's daily wages.....	20	\$49 53	\$2 46	30.00 were below the average.
Sons' daily wages.....	3	4 52	1 50	33.33 " "
Days employed, men.....	20	497	24 ¹ / ₂	92.03 of working days.
sons.....	3	76	25 ⁷ / ₁₀	93.84 " "
Men's monthly earnings.....	20	\$1,214 47	\$60 22	91.45 of gross earnings.
Sons' monthly earnings.....	3	113 50	37 83	8.55 " "
Incomes from other sources.....	3	25 00	8 33	1.84 of gross income.
Aggregate incomes and earnings.....	20	1,352 99	67 64	29.72 above gross expenses.
Daily income per family.....	20	.....	2 18	65.00 were below the average.
Monthly income per person.....	103	.....	12 13	.....
Daily income per person.....	103	.....	42 ³ / ₅	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	19	\$301 55	\$15 87	28.91 of gross expenses.
Fresh meat.....	19	87 35	4 59	8.38 " "
Clothing.....	20	137 75	6 88	13.20 " "
Fuel.....	15	24 00	1 60	2.30 " "
Rent.....	11	96 50	8 78	9.25 " "
Sickness.....	20	61 00	3 05	5.85 " "
Interest, insurance, taxes.....	14	41 10	2 94	3.94 " "
Education.....	20	76 00	3 80	7.29 " "
Society dues.....	17	30 75	1 81	2.95 " "
Boarding.....	3	26 00	8 66	2.49 " "
Sundries.....	20	161 00	8 05	15.44 " "
Aggregate family expenses.....	20	1,043 00	52 15	77.09 of gross income.
Daily expenses per family.....	20	.....	1 68	70.00 were below the average.
Monthly expenses per person.....	103	.....	10 13	.....
Daily expenses per person.....	103	.....	32 ⁷ / ₁₀	.....
Incomes above expenses.....	18	330 74	18 37	24.44 of gross income.
Expenses above incomes.....	2	20 75	10 37	1.53 more than gross income.
Net surplus.....	20	309 99	15 49	22.91 of gross incomes.

Below the average: 13 family incomes, 14 family expenses, 6 fathers' daily wages.

LEAVENWORTH — CONTINUED.

MONTHLY RETURNS FOR AUGUST, 1888.

Two blacksmiths, averaging 6 persons to family, worked 25.5 days, at \$2.62 per day; 4 carpenters, averaging 6.2 to family, 25.2 days, at \$2.50; 3 cigar-makers, averaging 6 to family, 26 days, at \$2.13; 2 laborers, averaging 4.5 to family, 21.5 days, at \$1.50; 2 locomotive engineers, averaging 4.5 to family, 31 days, at \$3.75; 1 locomotive fireman, 4 in family, 31 days, at \$1.80; 2 machinists, averaging 5.5 to family, 27 days, at \$2.75; 2 moulders, averaging 5 to family, 27 days, at \$3.50; 1 printer, 6 in family, 27 days, at \$2.50; 1 stationary engineer, single, 30 days, at \$2 per day. Parents, 28; sons, 28; daughters, 33; other persons, 6; unmarried men, 1; native-born adults, 21; foreign-born adults, 17. Average age of employed, men, 38.4; sons, 18.5. Average number of hours employed daily, men, 9.4. Paid weekly, 13; semi-monthly, 4; monthly, 3; had wages withheld, 2—15 days each; preferred weekly payment of wages, 6; belonged to labor organizations, 7; had life insurance, 15; amount, \$24,000; had weekly benefits, 9; average amount, \$8.55. Owned homes, 6; homes mortgaged, 1; aggregate amount, \$400; annual interest, 8 per cent. Highest daily wages, locomotive engineer, \$4; lowest, laborer, \$1.50. Highest family income, locomotive engineer, \$124; lowest, laborer, \$34.50. Highest family expense, carpenter, \$103.50; lowest, laborer, \$30. Average number rooms rented, 3.4; monthly rent per room, \$2.82.

	<i>No. reported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	20	105	5 $\frac{1}{2}$	.....
Persons employed.....	20	22	.....	21 of all persons reported.
Men's daily wages.....	20	\$48 95	\$2 45	40 were below the average.
Sons' daily wages.....	2	2 69	1 34	50
Days employed, men.....	20	531	26 $\frac{1}{2}$	98.33 of working days.
sons.....	2	53	26 $\frac{1}{2}$	98.33
Men's monthly earnings.....	20	\$1,316 70	\$65 84	94.95 of gross earnings.
Sons' monthly earnings.....	2	70 00	35 00	5.05
Incomes from other sources.....	2	76 00	38 00	5.19 of gross income.
Aggregate incomes and earnings.....	20	1,462 70	73 13	28.54 above gross expenses.
Daily income per family.....	20	.....	2 36	65 were below the average.
Monthly income per person.....	105	.....	13 83	.....
Daily income per person.....	105	.....	44 $\frac{3}{4}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	19	\$369 50	\$19 45	32.47 of gross expenses.
Fresh meat.....	19	106 25	5 59	9.34
Clothing.....	20	164 75	8 23	14.48
Fuel.....	16	28 50	1 78	2.50
Rent.....	14	135 50	9 68	11.90
Sickness.....	19	53 50	2 81	4.70
Interest, insurance, taxes.....	16	22 25	1 38	1.96
Education.....	20	58 20	2 91	5.11
Society dues.....	8	16 00	2 00	1.40
Boarding.....	4	38 00	9 50	3.43
Sundries.....	20	145 50	7 27	12.71
Aggregate family expenses.....	20	1,137 85	56 89	77.78 of gross income.
Daily expenses per family.....	20	.....	1 33	55 were below the average.
Monthly expenses per person.....	105	.....	10 83	.....
Daily expenses per person.....	105	.....	34 $\frac{3}{10}$	.....
Incomes above expenses.....	20	324 85	16 24	22.21 of gross income.
Net surplus.....	20	324 85	16 24	22.21 of gross incomes.

Below the average: 13 family incomes, 11 family expenses, 8 father's daily wages.

LEAVENWORTH — CONTINUED.

MONTHLY RETURNS FOR SEPTEMBER, 1888.

Two brakemen, averaging 4 persons to family, worked 28 days at \$1.90 per day; 2 cabinet-makers, averaged 6 to family, 25.5 days at \$2.05; 3 carpenters averaged 5.3 to family, 25 days at \$2.25; 2 harness-makers averaged 6 to family, 26 days at \$2.02; 1 laborer, 4 in family, 10 days at \$1.50; 3 locomotive engineers, averaged 6 to family, 30 days at \$3.66; 3 machinists averaged 6 to family, 25 days at \$2.66; 5 moulders averaged 7.4 to family, 22.4 days at \$2.55; 1 printer, single, 12 days at \$2.50; 1 stationary engineer, 5 in family, 28 days at \$2. Parents, 44; sons, 46; daughters, 31; other persons, 10; unmarried men, 1; native-born adults, 29; foreign-born adults, 15. Average age of employed: men, 38; women, 38; sons, 18.2. Average number of hours employed daily: men, 9.6. Paid weekly, 16; monthly, 6. semi-monthly, 1; monthly, 6; had wages withheld, 4; 16 days each; preferred weekly payment of wages, 10. Belonged to labor organizations, 8. Had life insurance, 13; amount, \$24,000; had weekly benefits, 9; average amount, \$6.55. Owned homes, 12; homes mortgaged, 4; aggregate amount, \$1,500; annual interest, 9.5 per cent. Highest daily wages, locomotive engineer, \$4; lowest, cabinet-maker, \$1.35. Highest family income, moulder, \$190; lowest, printer, \$30. Highest family expense, moulder, \$152; lowest, printer, \$18. Average number of rooms rented, 3.1; monthly rent per room, \$2.80. Coal per ton, \$3.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	23	131	5.7	22.00 of all persons reported.
Persons employed.....	23	29	42	51.54 of 77, total number reported
Children at school.....	19	42	42	39.00 were below the average.
Men's daily wages.....	23	\$57 05	\$2 48	50.00 " " "
Sons' daily wages.....	4	6 70	1 67	24½ 98.26 of working days.
Days employed, men.....	23	565	24½	21½ 87.00 " " "
Days employed, sons.....	4	87	21½	88.77 of gross earnings.
Men's monthly earnings.....	23	\$1,408 95	\$61 26	1.26 " " "
Women's monthly earnings.....	1	20 00	20 00	9.97 " " "
Sons' monthly earnings.....	5	158 20	31 64	5.81 of gross incomes.
Incomes from other sources.....	2	98 00	49 00	24.12 above gross expenses.
Aggregate incomes and earnings.....	23	1,685 15	73 25	69.00 were below the average.
Daily income per family.....	23	.....	2 44	.....
Monthly income per person.....	131	.....	12 86	.....
Daily income per person.....	131	.....	42 8½	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	22	\$416 05	\$18 91	30.64 of gross expenses.
Fresh meat.....	22	145 75	6 62	10.74 " " "
Clothing.....	22	253 75	11 53	18.68 " " "
Fuel.....	19	74 47	3 92	5.49 " " "
Rent.....	9	78 50	8 72	5.78 " " "
Sickness.....	21	86 55	4 12	6.37 " " "
Interest, insurance, taxes.....	14	28 90	2 06	2.13 " " "
Education.....	22	64 75	2 94	4.77 " " "
Society dues.....	12	24 45	2 05	1.80 " " "
Boarding.....	5	40 00	8 00	2.95 " " "
Sundries.....	21	144 50	6 88	10.65 " " "
Aggregate family expenses.....	23	1,357 67	59 02	80.57 of gross income.
Daily expenses per family.....	23	.....	1 96	69.00 were below the average.
Monthly expenses per person.....	131	.....	10 36	.....
Daily expenses per person.....	131	.....	34½	.....
Incomes above expenses.....	20	355 68	17 78	21.10 of gross income.
Expenses above incomes.....	3	28 20	9 40	1.67 more than gross income.
Net surplus.....	23	327 48	14 23	19.43 above gross incomes.

Below the average: 16 family incomes, 16 family expenses, 9 father's daily wages.

LEAVENWORTH—CONCLUDED.

MONTHLY RETURNS FOR OCTOBER, 1888.

One baker, 6 persons in family, worked 26 days at \$2.40 per day; 1 barber, 4 in family, 31 days at \$1.66; 1 boiler-maker, 5 in family, 20 days at \$3; 1 brakeman, 4 in family, 31 days at \$1.70; 2 bricklayers, average 9 to family, 22 days at \$4.25; 2 cabinet-makers, average 7 to family, 25½ days at \$2.25; 2 carpenters, average 9 to family, 24 days at \$2.62; 2 cigar-makers, average 4½ to family, 27 days at \$2.25; 1 harness-maker, 4 in family, 27 days at \$2; 1 janitor, 2 in family, 29 days at \$1.38; 1 railroad section laborer, 3 in family, 27 days at \$1.15; 1 laborer, 2 in family, 22 days at \$1.50; 2 locomotive engineers, average 6½ to family, 31 days at \$3.25; 1 locomotive fireman, 4 in family, 31 days at \$2.08; 2 machinists, average 2½ to family, 27 days at \$2.87 per day. Parents, 47; sons, 40; daughters, 41; other persons, 11; unmarried men, 1; native-born adults, 33; foreign-born adults, 14. Average age of employed: men, 38 $\frac{1}{10}$; women, 41; sons, 17; daughters, 18. Average number of hours employed daily: men, 10½. Paid weekly, 16; semi-monthly, 2; monthly, 7; had wages withheld, 5—15 days each; preferred weekly payment of wages, 7; belonged to labor organizations, 12; had life insurance, 17; amount, \$30,000; had weekly benefits, 12; average amount, \$7; owned homes, 9; homes mortgaged, 3; aggregate amount, \$1,100; annual interest, 8 per cent. Highest daily wages, bricklayer, \$4.50; lowest, railroad section laborer, \$1.15. Highest family income, bricklayer, \$195; lowest, railroad section laborer, \$31. Highest family expense, brick-maker, \$177.50; lowest, railroad section laborer, \$27.50. Average number rooms rented, 2½; monthly rent per room, \$2.60.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	25	139	5½	26.00 of all persons reported.
Persons employed.....	25	37	10	49.00 of 81, total number reported
Children at school.....	18	40	40	52.00 were below the average.
Men's daily wages.....	25	\$60 87	\$2 43	
Women's daily wages.....	1		1 00	
Sons' daily wages.....	6	6 26	1 04	50.00 were below the average.
Daughters' daily wages.....	1		1 00	
Days employed, men.....	25	661	26½	96.00 of working days.
“ “ women.....	1	10	10	37.00 of working days.
“ “ sons.....	6	166	27½	89.00 of all days in month.
“ “ daughters.....	1	15	15	55.00 of working days.
Men's monthly earnings.....	25	\$1,585 34	\$63 45	88.99 of gross earnings.
Women's monthly earnings.....	1	10 00	10 00	0.56 “ “
Sons' monthly earnings.....	6	171 15	28 52	9.61 “ “
Daughters' monthly earnings.....	1	15 00	15 00	0.84 “ “
Incomes from other sources.....	2	154 00	77 00	7.95 of gross incomes.
Aggregate incomes and earnings.....	25	1,935 49	77 42	14.90 above gross expenses.
Daily income per family.....	25		2 50	64.00 were below the average.
Monthly income per person.....	139		13 92	
Daily income per person.....	139		44½	
MONTHLY FAMILY EXPENSES.				
Groceries.....	24	\$441 25	\$18 38	26.79 of gross expenses.
Fresh meat.....	24	145 90	6 08	8.86 “ “
Clothing.....	25	347 00	13 88	21.07 “ “
Fuel.....	20	83 00	4 15	5.04 “ “
Rent.....	14	98 50	6 68	5.68 “ “
Sickness.....	25	81 25	3 25	4.93 “ “
Interest, insurance, taxes.....	17	30 75	1 81	1.87 “ “
Education.....	25	59 80	2 39	3.63 “ “
Society dues.....	20	35 50	1 77	2.15 “ “
Boarding.....	4	26 00	6 50	1.58 “ “
Sundries.....	25	303 00	12 12	18.40 “ “
Aggregate family expenses.....	25	1,646 95	65 88	85.09 of gross income.
Daily expense per family.....	25		2 13	64.00 were below the average.
Monthly expenses per person.....	139		11 85	
Daily expense per person.....	139		38½	
Incomes above expenses.....	21	306 84	14 61	15.85 of gross income.
Expenses above incomes.....	4	18 30	4 57	0.94 more than gross income.
Net surplus.....	25	288 54	11 54	14.91 of gross incomes.

Below the average: 16 family incomes, 16 family expenses, 13 father's daily wages.

NEWTON, HARVEY COUNTY.

MONTHLY RETURNS FOR APRIL, 1888.

One blacksmith, with 6 persons in family, worked 26 days, at \$2.50 per day; 2 brakemen, average $3\frac{1}{2}$ in family, $29\frac{1}{2}$ days, \$1.83; 4 carriage-makers, average $5\frac{1}{2}$ to family, $25\frac{1}{2}$ days, at \$2.50; 5 carpenters, average $4\frac{1}{2}$ to family, $23\frac{3}{4}$ days, at \$2.50; 2 cigar-makers, average 5 to family, 19 days, at \$2.34; 2 clerks, average $3\frac{1}{2}$ to family, 26 days, at \$2.11; 2 locomotive engineers, average 5 to family, $28\frac{1}{2}$ days, at \$3.50; 2 firemen, average 4 to family, 25 days, at \$2.25; 6 laborers, average 6 to family, $25\frac{1}{2}$ days, at \$1.49; 2 printers, 4 to family, $24\frac{1}{2}$ days, at \$2.12; 1 switchmen, 4 in family, 30 days, at \$2.25. Employed at piece work, 2; producing 9,000 cigars, at \$10 per 1,000. Parents, 59; sons, 47; daughters, 30; other persons, 9. Native-born adults, 47; foreign-born adults, 11. Average age of employed, men, $33\frac{1}{2}$; sons, 18 $\frac{3}{4}$. Average number of hours employed daily, men, 10.9. Paid weekly, 18; semi-monthly, 2; monthly, 10; had wages withheld, 7—16 days each; preferred weekly payment of wages, 13; belonged to labor organizations, 12; engaged in strike, 3.* Had life insurance, 31; amount, \$36,500; had weekly benefits, 21; average amount, \$6.48. Owned homes, 13; homes mortgaged, 6; aggregate amount, \$1,870; annual interest, $8\frac{3}{4}$ per cent. Highest daily wages, locomotive engineer, \$4; lowest, laborer, \$1.25. Highest family income, laborer, \$117; lowest, laborer, \$30. Highest family expenses, laborer, \$94; lowest, laborer, \$29.25. Average number rooms rented, 2.6; monthly rent per room, \$2.94. Coal per ton, \$4.56.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	30	145	$4\frac{1}{2}$	22.00 of all persons reported.
Persons employed.....	30	33		37.00 of 77, total number reported
Children at school.....	15	28		40.00 were below the average.
Men's daily wages.....	30	\$66 15	\$2 20	66.00 " " " "
Sons' daily wages.....	3	3 79	1 26	83.00 of all days in the month.
Days employed, men.....	30	752	$25\frac{3}{4}$	86.00 " " " "
" sons.....	3	78	26	94.40 of gross earnings.
Men's monthly earnings.....	30	\$1,656 95	\$55 23	5.60 " " " "
Sons' monthly earnings.....	3	98 50	32 83	6.25 of gross incomes.
Incomes from other sources.....	4	117 00	29 25	32.72 above gross expenses.
Aggregate incomes and earnings.....	30	1,872 45	62 41	63.00 were below the average.
Daily income per family.....	30		2 08	
Monthly income per person.....	145		12 91	
Daily income per person.....	145		43	
MONTHLY FAMILY EXPENSES.				
Groceries.....	29	\$418 25	\$14 42	29.67 of gross expenses.
Fresh meat.....	29	106 40	3 67	7.55 " " " "
Clothing.....	29	308 75	10 65	21.90 " " " "
Fuel.....	24	64 75	2 70	4.60 " " " "
Rent.....	16	118 50	7 41	8.43 " " " "
Sickness.....	25	67 50	2 70	4.80 " " " "
Interest, insurance, taxes.....	24	68 00	2 83	4.83 " " " "
Education.....	28	27 90	99	1.98 " " " "
Society dues.....	27	43 00	1 59	3.06 " " " "
Boarding.....	6	48 45	8 08	3.44 " " " "
Sundries.....	30	139 25	4 64	9.74 " " " "
Aggregate family expenses.....	30	1,410 75	47 02	75.34 of gross income.
Daily expenses per family.....	30		1 57	70.00 were below the average.
Monthly expenses per person.....	145		9 73	
Daily expenses per person.....	145		$32\frac{3}{4}$	
Incomes above expenses.....	29	463 70	15 99	24.77 of gross income.
Expenses above incomes.....	1	2 00	2 00	0.11 more than gross income.
Net surplus.....	30	461 70	12 05	24.66 of gross incomes.

Below the average: 19 family incomes, 21 family expenses, 12 father's daily wages.

* Caused by the C. B. & Q. strike.

NEWTON—CONCLUDED.

MONTHLY RETURNS FOR MAY, 1888.

Two locomotive firemen, averaging 4 in family, worked $26\frac{1}{2}$ days at \$2.25; 1 railroad employé, 6 in family, worked 30 days at \$1.64; 4 laborers, averaging $6\frac{1}{2}$ in family, worked $25\frac{1}{2}$ days at \$1.50; 2 printers, 4 in family, worked 26 days at \$2.12 $\frac{1}{2}$; 1 switchman, 4 in family, worked 30 days at \$2.25. Parents, 20; sons, 14; daughters, 12; other persons, 5. Native-born adults, 16; foreign-born adults, 4. Average age of employed: men, 33; sons, 19. Average number of hours employed daily: men, 10 $\frac{2}{3}$; sons, 10. Paid weekly, 5; monthly 5; had wages withheld, 5—16 days each; preferred weekly payment of wages, 10. Belonged to labor organizations, 4. Had life insurance, 4; average amount, \$1,250; had weekly benefits, 3; average amount, \$4.67. Owned homes, 5; homes mortgaged, 2; aggregate amount, \$450; annual interest, 8 per cent. Highest daily wages, locomotive fireman, \$2.25; lowest, laborer, \$1.25. Highest family income, laborer, \$105.50; lowest, laborer, \$36. Highest family expense, laborer, \$79; lowest, laborer, \$29.75. Average number rooms rented, 2; monthly rent per room, \$2.55. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	10	51	5 $\frac{1}{6}$	.....
Persons employed.....	10	12	1 $\frac{1}{3}$	23.53 of all persons reported.
Children at school.....	.....	9	.....	34.61 of 26, total number reported
Men's daily wages.....	10	\$18 64	\$1 86	50.00 were below the average.
Sons' daily wages.....	2	2 25	1 12 $\frac{1}{2}$	50.00 " " "
Days employed, men.....	10	2 66	26 $\frac{3}{4}$	98.52 of working days.
" " sons.....	2	51	25 $\frac{1}{2}$	94.44 " " "
Men's monthly earnings.....	10	\$498 85	\$49 88	89.72 of gross earnings.
Sons' monthly earnings.....	2	57 25	28 62	10.28 " " "
Incomes from other sources.....	1	60 00	60 00	9.74 of gross incomes.
Aggregate incomes and earnings.....	10	616 10	61 61	31.43 above gross expenses.
Daily income per family.....	10	19 87	1 99	70.00 were below the average.
Monthly income per person.....	51	.....	12 08	.....
Daily income per person.....	51	.....	39	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	10	\$160 50	\$16 05	34.24 of gross expenses.
Fresh meat.....	10	41 00	4 10	8.75 " " "
Clothing.....	10	114 00	11 40	24.32 " " "
Fuel.....	8	12 75	1 59	2.72 " " "
Rent.....	5	28 00	5 60	5.97 " " "
Sickness.....	10	25 50	2 55	5.44 " " "
Interest, insurance, taxes.....	4	5 00	1 25	1.07 " " "
Education.....	10	16 50	1 65	3.52 " " "
Society dues.....	5	4 50	90	0.90 " " "
Boarding.....	1	6 00	6 00	1.28 " " "
Sundries.....	10	55 00	5 50	11.73 " " "
Aggregate family expenses.....	10	468 75	46 87	76.08 of gross income.
Daily expenses per family.....	10	15 12	1 51	60.00 were below the average.
Monthly expenses person.....	51	.....	9 19	.....
Daily expenses per person.....	51	.....	29 $\frac{3}{4}$	.....
Incomes above expenses.....	10	147 35	14 73	23.92 of gross income.
Net surplus.....	10	147 35	14 73	23.92 of gross income.

Below the average: 7 family incomes, 6 family expenses, 5 father's daily wages.

OSAGE CITY, OSAGE COUNTY.

MONTHLY RETURNS FOR FEBRUARY, 1888.

Seven coal miners, averaging $2\frac{5}{8}$ in family, dug 3,495 bushels of coal, averaging 499 bushels at an average of $7\frac{3}{4}$ cents per bushel. Employed at piece work 7, producing 3,495 bushels coal in 113 days, an average per day per man of 31 bushels. Parents, 15; sons, 4; other persons, 1. Native-born adults, 6; foreign-born adults, 7. Average age of employed, men, 29. Average number of hours employed daily, men, 10. Paid semi-monthly, 2; monthly, 5; had wages withheld, 6—14 days each; preferred weekly payment of wages, 6. Belonged to labor organizations, 3. Had life insurance, 2; amount, \$2,000. Owned homes, 7; homes mortgaged, 4; aggregate amount, \$400; annual interest, 16 per cent. Highest daily wages, \$3.01; lowest, \$1.80. Highest family income, \$66.36; lowest, \$30. Highest family expense, \$37.25; lowest, \$18.80. Average price of fresh meat per pound, 10 cents; coal per ton, \$2.75.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	7	20	$2\frac{5}{8}$	.....
Persons employed.....	7	7	1	35.00 of all persons reported.
Men's daily wages.....	7	\$15 70	\$2 24	42.86 were below the average.
Days employed, men.....	7	113	16 $\frac{1}{2}$	64.56 of working days.
Men's monthly earnings.....	7	\$255 89	\$36 56	100.00 of gross earnings.
Aggregate incomes and earnings.....	7	255 89	36 56	22.33 above gross expenses.
Daily income per family.....	7	8 82	1 26	71.43 were below the average.
Monthly income per person.....	20	.....	12 80	.....
Daily income per person.....	20	.....	44 $\frac{1}{2}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	7	\$96 65	\$13 81	46.21 of gross expenses.
Fresh meat.....	7	19 45	2 78	9.30 " "
Clothing.....	5	17 65	3 53	8.44 " "
Fuel.....	6	16 41	2 73	7.85 " "
Sickness.....	5	12 00	2 40	5.74 " "
Interest, insurance, taxes.....	5	15 85	3 17	7.52 " "
Education.....	6	7 37	1 23	3.52 " "
Society dues.....	7	6 15	88	2.94 " "
Sundries.....	7	17 65	2 52	8.43 " "
Aggregate family expenses.....	7	209 18	29 88	81.74 of gross income.
Daily expenses per family.....	7	7 21	1 03	28.57 were below the average.
Monthly expenses per person.....	20	.....	10 46	.....
Daily expenses per person.....	20	.....	36	.....
Incomes above expenses.....	5	48 11	9 62	18.80 of gross income.
Expenses above income.....	2	1 40	70	0.55 more than gross income.
Net, surplus.....	7	46 71	6 67	18.26 of gross incomes.

Below the average: 5 family incomes, 2 family expenses, 3 father's daily wages.

PETERTON, OSAGE COUNTY.

COAL MINERS' MONTHLY RETURNS FOR OCTOBER, 1887.

One with 8 in family worked 20 days at \$2.10 per day; 1 with 4, 26 days, \$2.32; 1 with 8, 26 days, 2.57; 1 with 9, 17 days, \$3.17; 1 with 6, 23 days, \$2.45; 1 with 5, 26 days, \$1.92; 1 with 7, 25 days, \$1.88; 1 with 3, 22 days, \$1.94; 1 with 4, 27 days, \$2.22; 1 with 9, 13 days, \$1.92, and 3 sons, 39 days, \$1.56; 1 with 8, 24 days, \$2.50, and 1 son, 24 days, \$1.20 per day. Parents, 22; sons, 27; daughters, 22. Average number of hours employed daily: men, 10.7. Highest daily wages, \$3.17; lowest, \$1.88. Highest family income, \$91.47; lowest, \$42. Highest family expense, \$86; lowest, \$39.20. Average number of rooms rented, $3\frac{1}{2}$; monthly rent per room, \$1.39. Coal per ton, \$2.46.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	11	71	$6\frac{4}{10}$	.....
Persons employed.....	11	16	.....	22.00 of all persons reported.
Children at school.....	8	23	.....	27.00 of 49, total number reported.
Men's daily wages.....	11	\$24 99	\$2 27	54.00 were below the average.
Sons' daily wages.....	4	5 52	1 38	33.00 " " "
Daughters' daily wages.....	1	.....	18	.....
Days employed, men.....	11	249	$22\frac{1}{10}$	87.00 of working days.
" " sons.....	4	63	$15\frac{1}{10}$	60.00 " " "
" " daughters.....	1	14	14	54.00 " " "
Men's monthly earnings.....	11	\$565 33	\$51 21	\$6.06 of gross earnings.
Sons' monthly earnings.....	4	89 97	22 49	13.55 " " "
Daughters' monthly earnings.....	1	2 50	2 50	0.39 " " "
Aggregate incomes and earnings.....	11	657 80	59 80	14.02 above gross expenses.
Daily income per family.....	11	.....	1 93	45.00 were below the average.
Monthly income per person.....	71	.....	9 26	.....
Daily income per person.....	71	.....	$29\frac{8}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	11	241 16	\$21 92	41.78 of gross expenses.
Fresh meat.....	10	51 80	5 18	9.00 " " "
Clothing.....	11	141 15	12 83	24.47 " " "
Fuel.....	10	21 62	2 16	3.75 " " "
Rent.....	6	32 00	5 33	5.55 " " "
Sickness.....	9	14 35	1 59	2.49 " " "
Interest, insurance, taxes.....	1	1 50	1 50	0.26 " " "
Education.....	7	16 30	2 33	2.83 " " "
Sundries.....	10	56 95	5 69	9.87 " " "
Aggregate family expenses.....	11	576 83	52 44	87.69 of gross income.
Daily expenses per family.....	11	.....	1 69	54.00 were below the average.
Monthly expenses per person.....	71	.....	8 13	.....
Daily expenses per person.....	71	.....	$26\frac{2}{10}$	.....
Incomes above expenses.....	7	83 88	11 98	12.75 of gross income.
Expenses above incomes.....	2	2 91	1 45	0.44 more than gross income.
Net surplus.....	11	80 97	7 36	12.31 of gross incomes.

Below the average: 5 family incomes, 7 family expenses, 6 father's daily wages.

PETERTON — CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR NOVEMBER, 1887.

One with 2 in family worked 26 days at \$2 per day; 1 with 5 in family, 25 days, \$2; 1 with 8, 20 days, \$3.33; 1 with 6, 25 days, \$3; 1 with 7, 24 days, \$2.17; 1 with 3, 7 days, \$1.83; 1 with 8, 25 days, \$1.75; 1 with 6, 20 days, \$2.50; 1 with 4, 14 days, \$2; 1 with 8, 23 days, \$1.75, and 1 son, 20 days, \$1.02; and 1 with 3, 23 days, \$1.74 per day. Parents, 21; sons, 21; daughters, 18. Average number of hours employed daily: men, 10. Highest daily wages, \$3.33; lowest, \$1.74. Highest family income, \$75; lowest, \$12. Highest family expense, \$72.06; lowest, \$25. Average number rooms rented, 2.8; monthly rent per room, \$1.61. Coal per ton, \$2.60.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in family.....	11	70	5.4	.....
Persons employed.....	11	12	.....	17.00 of all persons reported.
Children at school.....	7	18	.....	37.00 of 48, total number reported
Men's daily wages.....	11	\$24 07	\$2 19	73.00 were below the average.
Sons' daily wages.....	1	.....	1 04	.....
Days employed, men.....	11	232	21 ¹ / ₁₀	81.00 of working days.
“ “ sons.....	1	20	20	77.00 “ “
Men's monthly earnings.....	11	\$538 68	\$50 83	96.40 of gross earnings.
Sons' monthly earnings.....	1	20 45	20 45	3.60 “ “
Aggregate incomes and earnings.....	11	559 13	52 69	11.14 above gross expenses.
Daily income per family.....	11	.....	1 75	63.00 were below the average.
Monthly income per person.....	70	.....	9 32	.....
Daily income per person.....	70	.....	31	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	11	\$225 10	\$20 47	41.75 of gross expenses.
Fresh meat.....	10	33 00	3 30	6.56 “ “
Clothing.....	11	107 50	9 78	21.37 “ “
Fuel.....	10	31 57	3 15	6.28 “ “
Rent.....	5	22 50	4 50	4.47 “ “
Sickness.....	10	14 35	1 43	2.85 “ “
Interest, insurance, taxes.....	2	22 85	11 42	4.54 “ “
Education.....	6	13 00	2 17	2.58 “ “
Sundries.....	8	33 20	4 15	6.60 “ “
Aggregate family expenses.....	11	503 07	45 73	89.97 of gross income.
Daily expenses per family.....	11	.....	1 52	45.00 were below the average.
Monthly expenses per person.....	70	.....	7 18	.....
Daily expenses per person.....	70	.....	23 ⁹ / ₁₀	.....
Incomes above expenses.....	7	72 41	10 34	12.96 of gross income.
Expenses above incomes.....	3	16 35	5 45	2.93 more than gross income.
Net surplus.....	11	56 06	5 09	10.03 of gross incomes.

Below the average: 7 family incomes, 5 family expenses, 8 father's daily wages.

PETERTON—CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR DECEMBER, 1887.

One with 4 in family earned \$2.55 per day; 1 with 8 in family earned \$4.52; 1 with 5, \$2; 1 with 3, \$2; 1 with 8, \$2.50; 1 with 8, \$3.14; 1 with 7, \$2.50; 1 with 8, \$2.86; 1 with 7, \$2.12; 1 with 6, \$3. Parents, 20; sons, 21; daughters, 23. Highest daily wages, \$4.52; lowest, \$2. Highest family income, \$85.93; lowest, \$46. Highest family expense, \$63.95; lowest, \$15. Average number rooms rented, 4.2; monthly rent per room, \$1.29. Coal per ton, \$2.87.

	<i>No. re- ported.</i>	<i>Tota's.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	10	64	6 $\frac{2}{5}$	
Persons employed.....	10	11		17.00 of all persons reported.
Children at school.....	8	24		54.00 of 44, total number reported.
Men's daily wages.....	10	\$27 19	\$2 71	60.00 were below the average.
Daughter's daily wages.....	1	10	10	
Days employed, men.....	10	233	23 $\frac{3}{10}$	89.61 of working days.
“ “ daughters.....	1	31	31	100.00 “ “
Men's monthly earnings.....	10	\$623 37	\$62 33	99.57 of gross earnings.
Daughter's monthly earnings.....	1	3 00	3 00	0.43 “ “
Aggregate incomes and earnings....	10	626 37	62 63	28.09 above gross expenses.
Daily income per family.....	10		2 02	50.00 were below the average.
Monthly income per person.....	64		9 79	
Daily income per person.....	64		31 $\frac{1}{2}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	10	\$222 40	\$22 24	45.54 of gross expenses.
Fresh meat.....	8	38 00	4 75	7.75 “ “
Clothing.....	9	105 00	11 66	21.47 “ “
Fuel.....	9	31 89	3 54	6.52 “ “
Rent.....	4	22 00	5 50	4.49 “ “
Sickness.....	8	10 60	1 32	2.16 “ “
Interest, insurance, taxes.....	3	12 44	4 14	2.54 “ “
Education.....	6	13 25	2 20	2.70 “ “
Sundries.....	8	33 40	4 17	6.88 “ “
Aggregate family expenses.....	10	488 98	48 89	78.06 of gross income.
Daily expenses per family.....	10		1 57	40.00 were below the average.
Monthly expenses per person.....	64		7 64	
Daily expenses per person.....	64		24 $\frac{3}{4}$	
Incomes above expenses.....	10	137 39	13 73	21.94 of gross income.
Net surplus.....	10	137 39	13 73	21.94 of gross incomes.

Below the average: 5 family incomes, 4 family expenses, 6 father's daily wages.

PETERTON—CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR APRIL, 1888.

One, with 9 persons in family, worked 24 days, earning \$1.62 per day; 1 with 8, 25 days, \$1.51; 1 with —, 13 days, \$1.96; 1 with 8, 24 days, \$1.80; 1 with 3, 12 days, \$2.03; 1 with 4, 23 days, \$1.07; 1 with 7, 15 days, \$1.70; 1 with 3, 18 days, \$1.67; 1 with 8, 18 days, \$1.83; 1 with 4, 15 days, \$1.53; 1 with 8, idle. Employed at piece work, 10, producing 3,919 bushels of coal at 6½ cents, and 775 at 7 cents per bushel, \$308.97. Parents, 22; sons, 23; daughters, 22; other persons, 1. Native-born adults, 8; foreign-born adults, 14. Average age of employed: men, 37.9. Average number of hours employed daily: men, 9.3. Paid semi-monthly 6; monthly, 3; had wages withheld, 5—14 days each; preferred weekly payment of wages, 8. Belonged to labor organizations, 4. Owned homes, 6; homes mortgaged, 2; aggregate amount, \$450; annual interest, 8 per cent. Highest daily wages, \$2.03; lowest, \$1.07. Highest family income, \$43.20; lowest, \$23. Highest family expense, \$47.30; lowest, \$16.20. Average number rooms rented, 4; monthly rent per room, \$1.54.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	11	68	6 ² / ₁₀	.....
Persons employed.....	10	11	.....	16.32 of all persons reported.
Children at school.....	9	26	.....	57.77 of 45, total number reported
Men's daily wages.....	10	\$16 87	\$1 69	50.00 were below the average.
Days employed, men.....	10	187	8 ⁷ / ₁₀	74.80 of working days.
Men's monthly earnings.....	10	\$308 97	\$30 90	98.73 of gross earnings.
Daughters' monthly earnings.....	1	4 00	4 00	1.27 " " "
Aggregate incomes and earnings.....	11	312 97	28 45	90.40 of gross expenses.
Daily income per family.....	11	.....	95	36.36 were below the average.
Monthly income per person.....	68	.....	4 60	.....
Daily income per person.....	68	.....	15 ³ / ₁₀	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	11	\$189 50	\$17 23	54.50 of gross expenses.
Fresh meat.....	11	29 05	2 64	8.41 " " "
Clothing.....	7	23 11	3 30	6.79 " " "
Fuel.....	9	14 64	1 63	4.25 " " "
Rent.....	3	18 50	6 17	5.36 " " "
Sickness.....	11	20 30	1 85	5.89 " " "
Interest, insurance, taxes.....	3	14 25	4 75	4.13 " " "
Education.....	4	3 25	81	0.94 " " "
Society dues.....	4	1 60	40	0.47 " " "
Sundries.....	7	32 02	2 91	9.26 " " "
Aggregate family expenses.....	11	346 22	31 47	9.60 above gross income.
Daily expenses per family.....	11	.....	1 05	54.54 were below the average.
Monthly expenses person.....	68	.....	5 09	.....
Daily expenses per person.....	68	.....	17	.....
Incomes above expenses.....	3	15 76	5 25	5.03 of gross income.
Expenses above incomes.....	7	49 01	7 00	15.65 more than gross income.
Net deficit.....	11	33 25	3 02	10.62 above gross incomes.

Below the average: 4 family incomes, 6 family expenses, 5 father's daily wages.

PETERTON — CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR MAY, 1888.

Thirteen coal miners average $17\frac{1}{2}$ days of $7\frac{1}{2}$ hours, earning an average of \$25.40, equalling \$1.43 per day, and 1 reports no earnings, but has an income of \$60, presumably from four boarders. Parents, 24; sons, 22; daughters, 27; other persons, 7; unmarried men, 2; native-born adults, 6; foreign-born adults, 20. Average age of employed: men, 37; sons, 13. Average number of hours employed daily: men, $7\frac{1}{2}$; sons, $7\frac{1}{2}$. Paid semi-monthly, 6; monthly, 5; had wages withheld, 10—15 days each; preferred weekly payment of wages, 10; belonged to labor organizations, 3. Owned homes, 8; homes mortgaged, 3; aggregate amount, \$520; annual interest, 6 per cent., average. Highest daily wages, \$2.04; lowest, 86 cents. Highest family income, \$60; lowest, \$15. Highest family expense, \$55.75; lowest, \$15. Average number rooms rented, $3\frac{1}{3}$; monthly rent per room, \$1.30. Average price of fresh meat per pound, 10 cents.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	14	82	5 $\frac{5}{8}$	
Persons employed.....	14	14	1	17.07 of all persons reported.
Children at school.....		20		40.82 of 49, total number reported
Men's daily wages.....	13	\$18 59	\$1 43	53.85 were below the average.
Sons' daily wages.....	1	50	50	
Days employed, men.....	13	227 $\frac{1}{2}$	17 $\frac{1}{2}$	64.81 of working days.
sons.....	1	26	26	96.29 " " "
Men's monthly earnings.....	13	\$326 34	\$25 10	96.17 of gross earnings.
Sons' monthly earnings.....	1	13 00	13 00	3.84 " " "
Incomes from other sources.....	3	86 00	28 66	20.22 of gross income.
Aggregate incomes and earnings.....	14	425 34	30 38	2.03 above gross expenses.
Daily income per family.....	14	13 72	98	64.28 were below the average.
Monthly income per person.....	82		5 19	
Daily income per person.....	82		16 $\frac{1}{2}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	13	\$242 65	\$18 66	58.21 of gross expenses.
Fresh meat.....	13	44 30	3 41	10.63 " " "
Clothing.....	12	47 20	3 93	11.32 " " "
Fuel.....	9	14 16	1 57	3.40 " " "
Rent.....	3	13 00	4 33	3.12 " " "
Sickness.....	9	11 70	1 30	2.80 " " "
Interest, insurance, taxes.....	3	2 60	86	.62 " " "
Education.....	7	12 55	1 80	3.01 " " "
Society dues.....	5	3 80	76	.91 " " "
Boarding.....	1	15 00	15 00	3.60 " " "
Sundries.....	6	9 90	1 65	2.38 " " "
Aggregate family expenses.....	14	416 86	29 77	98.01 of gross income.
Daily expenses per family.....	14	13 45	96	50.00 were below the average.
Monthly expenses per person.....	82		5 05	
Daily expenses per person.....	82		16 $\frac{1}{2}$	
Incomes above expenses.....	9	39 32	4 37	9.24 of gross income.
Expenses above incomes.....	5	30 84	6 17	7.25 more than gross income.
Net surplus.....	14	8 48	60 $\frac{1}{2}$	1.99 more than gross incomes.

Below the average: 9 family incomes, 7 family expenses, 7 father's daily wages.

PETERTON—CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR JUNE, 1888.

One with 13 persons in family, worked 19 days, earning \$2.98 per day; 1 with 9, 25 days, \$1.34; 1 with 8, 25 days, \$2.21; 1 with 13, 12 days, \$3.61; 1 with 8, 25 days, \$1.27; 1 with 8, 26 days, \$1.47; 1 with 6, 12 days, \$1.92; 1 single, 4 days, \$1.05. Employed at piece work: 8, producing 3,002 bushels at 7, and 1 170 bushels at 6½, \$286.18. Parents, 15; sons, 30; daughters, 18; other persons, 3; unmarried men, 1. Native-born adults, 6; foreign-born adults, 9. Average age of employed: men, 42.1. Average number of hours employed daily: men, 8.7. Paid semi-monthly, 6; monthly, 2; had wages withheld, 7—14 days each; preferred weekly payment of wages, 8. Belonged to labor organizations, 6. Owned homes, 6; homes mortgaged, 3; aggregate amount, \$420; annual interest, 12 per cent.; had personal property mortgaged 2; monthly interest, 3.33 per cent. Highest daily wages, \$3.61; lowest, \$1.05. Highest family income, \$56.63; lowest, \$4.22. Highest family expense, \$84.95; lowest, \$18.75. Average number of rooms rented, 4.1; monthly rent per room, \$1.37.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	8	66	8½	.....
Persons employed.....	8	8	.....	12.12 of all persons reported.
Children at school.....	5	17	.....	35.41 of 48, total number reported
Men's daily wages.....	8	\$15 95	\$1.94	62.50 were below the average.
Days employed, men.....	8	147	18½	70.67 of working days.
Men's monthly earnings.....	8	\$286 18	35 77	100.00 of gross earnings.
Aggregate incomes and earnings.....	8	286 18	35 77	88.52 of gross expenses.
Daily income per family.....	8	.....	1 19	50.00 were below the average.
Monthly income per person.....	66	.....	4 33	.....
Daily income per person.....	66	.....	14½	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	7	\$155 55	\$22 22	48.12 of gross expenses.
Fresh meat.....	7	26 50	3 78	8.20 " " "
Clothing.....	7	52 80	7 54	16.33 " " "
Fuel.....	6	11 48	1 91	3.55 " " "
Rent.....	3	18 00	6 00	5.57 " " "
Sickness.....	8	16 35	2 04	5.06 " " "
Interest, insurance, taxes.....	1	3 00	3 00	0.93 " " "
Education.....	6	3 15	52	0.97 " " "
Society dues.....	7	3 00	43	0.93 " " "
Boarding.....	1	15 00	15 00	4.64 " " "
Sundries.....	6	18 45	3 07	5.70 " " "
Aggregate family expenses.....	8	323 28	40 41	11.48 above gross income.
Daily expenses per family.....	8	.....	1 35	75.00 were below the average.
Monthly expenses per person.....	66	.....	4 90	.....
Daily expenses per person.....	66	.....	16½	.....
Incomes above expenses.....	4	45 35	11 34	15.85 of gross income.
Expenses above incomes.....	4	82 45	20 61	28.81 more than gross earnings.
Net deficit.....	8	37 10	4 14	12.96 above gross incomes.

Below the average: 4 family incomes, 6 family expenses, 5 father's daily wages.

PETERTON—CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR JANUARY, 1888.

One with 8 in family, worked 21 days, at \$3.33 per day; 1 with 3, 22 days, \$2.27; 1 with 3, 20 days, \$3.25; 1 with 15, 24 days, \$3.33; 1 with 8, 26 days, \$2.50; 1 with 8, 24 days, \$4; 1 with 9, 23 days, \$3.17; 1 with 6, 25 days, \$3.20; 1 with 4, 26 days, \$2.82; 1 with 4, 19 days, \$2.40; 1 with 3, 27 days, \$2.65; 1 with 3, 26 days, \$1.84; 1 with 7, 24 days, \$2.33; 1 with 8, 25 days, at \$3.03 per day. Employed at piece work, 16, producing 12,842 $\frac{3}{4}$ bushels of coal, at 8 cents per bushel, \$927.42. Parents, 28; sons, 26; daughters, 23; other persons, 12. Native-born adults, 10; foreign-born adults, 18. Average age of employed: men, 37.3. Average number of hours employed daily: men, 11 $\frac{1}{4}$. Paid semi-monthly, 9; monthly, 5; had wages withheld, 14—14 days each; preferred weekly payment of wages, 14. Belonged to labor organizations, 7. Owned homes, 6; homes mortgaged, 2; aggregate amount, \$575; annual interest, 7 per cent. Highest daily wages, \$4; lowest, \$1.84. Highest family income, \$120; lowest, \$45.58. Highest family expense, \$83.20; lowest, \$39.78. Average number rooms rented, 3.5; monthly rent per room, \$1.41. Coal per ton \$3.20.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	14	89	6 $\frac{3}{16}$	23.00 of all persons reported.
Persons employed.....	14	16	23 $\frac{7}{16}$	49.00 of 49, total number reported
Children at school.....	8	24	1 30	50.00 were below the average.
Men's daily wages.....	14	\$40 10	\$2 85	50.00 " " "
Sons' daily wages.....	2	2 60	1 30	50.00 " " "
Days employed, men.....	14	3 32	23 $\frac{7}{16}$	91.20 of working days.
" " sons.....	2	45	22 $\frac{1}{8}$	86.54 " " "
Men's monthly earnings.....	14	\$937 42	\$66 95	93.65 of gross earnings.
Sons' monthly earnings.....	2	60 40	30 20	6.00 " " "
Daughters' monthly earnings.....	1	3 50	3 50	0.35 " " "
Incomes from other sources.....	2	39 50	19 75	3.80 of gross incomes.
Aggregate incomes and earnings.....	14	1,040 82	74 34	36.22 above gross expenses.
Daily income per family.....	14	.....	2 40	57.00 were below the average.
Monthly income per person.....	89	.....	11 69	.....
Daily income per person.....	89	.....	37 $\frac{7}{16}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	14	363 65	\$25 97	47.66 of gross expenses.
Fresh meat.....	13	65 70	5 05	8.61 " " "
Clothing.....	11	87 85	7 98	11.49 " " "
Fuel.....	14	64 80	4 63	8.48 " " "
Rent.....	10	49 50	4 95	6.47 " " "
Sickness.....	11	14 95	1 36	2.00 " " "
Interest, insurance, taxes.....	4	10 80	2 70	1.41 " " "
Education.....	6	8 25	1 38	1.07 " " "
Society dues.....	7	9 90	1 41	1.19 " " "
Sundries.....	8	88 75	11 09	11.62 " " "
Aggregate family expenses.....	14	764 15	54 58	73.42 of gross income.
Daily expenses per family.....	14	.....	1 76	57.00 were below the average.
Monthly expenses per person.....	89	.....	8 58	.....
Daily expenses per person.....	89	.....	27 $\frac{7}{16}$	.....
Incomes above expenses.....	14	276 67	19 76	26.58 of gross income.
Net surplus.....	14	276 67	19 76	26.58 of gross incomes.

Below the average: 8 family incomes, 8 family expenses, 7 father's daily wages.

PETERTON — CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR FEBRUARY, 1888.

One with 7 in family worked 8 days at \$1.82 per day; 1 with 10, 8 days, \$2.20; 1 with 8, 12 days, \$2.44; 1 with 3, 8 days, \$2.52; 1 with 6, 7 days, \$3.05; 1 with 9, 11 days, \$2.44; 1 with 4, 8 days, \$2.88; 1 with 4, 18 days, \$1.67; 1 with 11, 15 days, \$2.38; 1 with 4, 4 days, \$2; 1 with 3, 18 days, \$1.56; 1 with 8, 24 days, \$1.83 per day; 2 boys averaged 80 cents per day. Employed at piece work, 14, producing 4,161 $\frac{5}{8}$ bushels of coal at 8 cents per bushel — \$332.92. Parents, 24; sons, 22; daughters, 21; other persons, 10. Native-born adults, 9; foreign-born adults, 15. Average age of employed: men, 39.4. Average number of hours employed daily: men, 9.7. Paid semi-monthly, 7; monthly, 4; had wages withheld, 9 — 13.5 days each; preferred weekly payment of wages, 11. Belonged to labor organizations, 5. Owned homes, 8; homes mortgaged, 3; aggregate amount, \$206; average annual interest, 9 $\frac{1}{2}$ per cent. Highest daily wages, \$3.05; lowest, \$1 56. Highest family income, \$89.60; lowest, \$8. Highest family expense, \$77.94; lowest, \$22.50. Average number of rooms rented, 3 $\frac{1}{2}$; monthly rent per room, \$1.86. Average price of fresh meat per pound, 10 $\frac{1}{2}$ cents; coal per ton, \$2.15.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	12	77	6 $\frac{4}{10}$	18.18 of all persons reported.
Persons employed.....	12	14	.....	48.93 of 43, total number reported.
Children at school.....	7	21	.....	50.00 were below the average.
Men's daily wages.....	12	\$26 79	\$2 23	50.00 " " "
Sons' daily wages.....	2	1 61	80 $\frac{1}{2}$	47.00 of working days.
Days employed, men.....	12	141	11 $\frac{1}{4}$	84.00 " " "
" " sons.....	2	42	21	89.76 of gross earnings.
Men's monthly earnings.....	12	\$298 84	\$24 90	10.24 " " "
Sons' monthly earnings.....	2	34 08	17 04	29.13 of gross incomes.
Incomes from other sources.....	3	136 94	45 65	87.28 of gross expenses.
Aggregate incomes and earnings.....	12	469 86	39 24	58.33 were below the average.
Daily income per family.....	12	.....	1 35	.....
Monthly income per person.....	77	.....	6 10	.....
Daily income per person.....	77	.....	21 $\frac{3}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	12	\$281 16	\$23 43	52.30 of gross expenses.
Fresh meat.....	10	52 15	5 21	9.65 " " "
Clothing.....	7	27 45	3 92	5.07 " " "
Fuel.....	10	34 36	3 43	6.36 " " "
Rent.....	6	34 75	5 79	6.43 " " "
Sickness.....	9	21 65	2 40	4.12 " " "
Interest, insurance, taxes.....	3	2 50	83	0.50 " " "
Education.....	5	3 85	77	0.71 " " "
Society dues.....	4	2 35	56	0.43 " " "
Sundries.....	7	78 10	11 16	14.43 " " "
Aggregate family expenses.....	12	538 32	44 90	12.72 above gross income.
Daily expenses per family.....	12	.....	1 55	66.66 were below the average.
Monthly expenses per person.....	77	.....	7 03	.....
Daily expenses per person.....	77	.....	26 $\frac{2}{10}$	.....
Incomes above expenses.....	5	29 53	5 90	6.28 of gross income.
Expenses above incomes.....	7	97 99	13 99	20.85 more than gross income.
Net deficit.....	12	68 46	5 70	14.57 above gross incomes.

Below the average: 7 family incomes, 8 family expenses, 6 father's daily wages.

PETERTON—CONTINUED.

COAL MINERS' MONTHLY RETURNS FOR MARCH, 1888.

One, with ten persons in family, worked 20 days, earning \$1.99 per day; 1 with 8, 24 days, \$2.18; 1 with 3, 24 days, \$1.66; 1 with 8, 18 days, \$2.22; 1 with 8, 27 days, \$2.80; 1 with 6, 22 days, \$1.73; 1 with 8, 10 days, \$1.31; 1 with 9, 19 days, \$2; 1 with 7, 26 days, \$1.69; 1 with 4, 22 days, \$1.51; 1 with 6, 17½ days, \$2. Employed at piece work 13, producing 7,017 bushels coal at 6 $\frac{3}{10}$ cents per bushel, \$479.68. Parents, 22; daughters, 25; other persons, 8. Native-born adults, 8; foreign-born adults, 14. Average age of employed: men, 39.9; sons, 13. Average number of hours employed daily: men, 10. Paid semi-monthly, 6; monthly, 3; had wages withheld, 8—14 days each; preferred weekly payment of wages, 7. Belonged to labor organizations, 4. Highest daily wages, \$2.80; lowest, \$1.31. Highest family income, \$73.09; lowest, \$33.28. Highest family expense, \$67.15; lowest, \$26.27. Average number of rooms rented, 4 $\frac{3}{4}$; monthly rent per room, \$1.79. Coal per ton, \$2.73.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	11	77	7	.....
Persons employed.....	11	13	.....	16.88 of all persons reported.
Children at school.....	9	25	.....	53.19 of 47, total number reported
Men's daily wages.....	11	\$21 09	\$1 92	45.45 were below the average.
Sons' daily wages.....	2	1 83	91	50.00 " "
Days employed, men.....	11	229 $\frac{5}{10}$	20 $\frac{9}{10}$	77.10 of working days.
" " sons.....	2	34	17	62.96 " "
Men's monthly earnings.....	11	\$49 65	\$4 88	93.74 of gross earnings.
Sons' monthly earnings.....	2	30 03	15 01	6.26 " "
Incomes from other sources.....	3	95 00	31 66	16.58 of gross incomes.
Aggregate incomes and earnings.....	11	574 68	52 24	30.16 above gross expenses.
Daily income per family.....	11	.....	1 68	63.63 were below the average.
Monthly income per person.....	77	.....	7 46	.....
Daily income per person.....	77	.....	24	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	11	\$213 94	\$19 45	50.05 of gross expenses.
Fresh meat.....	11	40 58	3 69	9.31 " "
Clothing.....	10	62 75	6 27	14.71 " "
Fuel.....	10	30 86	3 08	6.23 " "
Rent.....	4	34 00	8 50	6.97 " "
Sickness.....	9	9 20	1 02	2.15 " "
Interest, insurance, taxes.....	2	5 60	2 80	1.31 " "
Education.....	6	3 96	66	0.92 " "
Society dues.....	5	4 45	89	1.04 " "
Sundries.....	6	31 20	5 20	7.31 " "
Aggregate family expenses.....	11	436 54	39 69	75.96 of gross income.
Daily expenses per family.....	11	.....	1 25	63.63 were below the average.
Monthly expenses per person.....	77	.....	5 67	.....
Daily expenses per person.....	77	.....	18 $\frac{3}{10}$	.....
Income above expenses.....	9	151 12	16 79	26.29 of gross income.
Expenses above incomes.....	2	12 98	6 49	2.25 more than gross income.
Net surplus.....	11	138 14	12 56	24.04 of gross incomes.

Below the average: 7 family incomes, 7 family expenses, 5 father's daily wages.

PETERTON — CONCLUDED.

COAL MINERS' MONTHLY RETURNS FOR JULY, 1888.

One with 8 persons in family, worked 4 days earning \$1.70 per day; 1 with 13, 11 days at \$2.15; 2 with 8 each idle; 1 with 8, 3 days at \$1.19; 1 with 6, 7 days at \$1.94; 1 with 3, idle. Employed at piece work, 4, producing 602 bushels of coal at 7 cents per bushel, \$42.14. Parents, 14; sons, 23; daughters, 16; other persons, 1. Native-born adults, 5; foreign-born adults, 9. Average age of employed, men, 42.3. Average number of hours employed daily, men, 8.7. Paid semi-monthly, 3; monthly, 3; had wages withheld, 3—13 days each; preferred weekly payment of wages, 6. Belonged to labor organizations, 3; engaged in strike, 7. Owned homes, 6; homes mortgaged, 2; aggregate amount, \$341; annual interest, 12 per cent.; had personal property mortgaged, 1; monthly interest, $2\frac{1}{2}$ per cent. Highest daily wages, \$2.15; lowest, \$1.19. Highest family income, \$23.73; lowest, \$3.57. Highest family expense, \$63.40; lowest, \$9.90. Average number rooms rented, 4; monthly rent per room, \$1.50.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	7	54	7 $\frac{7}{10}$	
Persons employed.....	4	4		7.42 of all persons reported.
Men's daily wages.....	4	\$6 98	\$1 74	50.00 were below the average.
Days employed, men.....	4	22	5 $\frac{1}{2}$	11.15 of working days.
Men's monthly earnings.....	4	\$41 86	\$10 46	100.00 of gross earnings.
Incomes from other sources.....	1	10 00	10 00	19.28 of gross incomes.
Aggregate incomes and earnings.....	7	51 86	7 41	24.18 of gross expenses.
Daily income per family.....	7		24	14.28 were below the average.
Monthly income per person.....	54		96	
Daily income per person.....	54		3 $\frac{1}{10}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	7	\$132 12	\$18 87	63.19 of gross expenses.
Fresh meat.....	7	21 50	3 07	10.28 " "
Clothing.....	4	10 55	2 64	5.05 " "
Fuel.....	3	3 65	1 21	1.75 " "
Rent.....	2	12 00	6 00	5.74 " "
Sickness.....	6	7 90	1 31	3.78 " "
Education.....	4	2 20	55	1.05 " "
Society dues.....	3	1 85	62	0.89 " "
Sundries.....	5	17 30	3 46	8.27 " "
Aggregate family expenses.....	7	209 07	29 87	75.19 above gross income.
Daily expenses per family.....	7		97	44.28 were below the average.
Monthly expenses per person.....	54		3 88	
Daily expenses per person.....	54		12 $\frac{1}{2}$	
Expenses above income.....	7	157 21	22 46	32.35 more than gross income.
Net deficit.....	7	157 21	22 46	32.35 above gross incomes.

Below the average: 1 family incomes, 3 family expenses, 2 father's daily wages.

TOPEKA, SHAWNEE COUNTY.

MONTHLY RETURNS FOR JANUARY, 1888.

One agent, with 2 persons in family, idle; 1 brick-layer, with 5 in family, worked 6 days, at \$5 per day; 1 brick-moulder, with 2 in family, idle; 13 carpenters, 3 single, 3 idle, 10 averaged 4.2 persons to family, 9 averaged 14.4 days, at \$2.37 per day; 1 clerk, 4 in family, 26 days, at \$2.66; 1 stationary engineer, with 3 in family, 27½ days, at \$2.40; 1 stationary fireman, with 5 in family, 31 days, at \$1.61; 1 gardener, with 3 in family, 3.2 days, at \$2.80; 15 laborers, average 4 in family, 5 were idle, 10 averaged 5.9 days, at \$1.38; 7 stone-cutters, 6 averaged 3.3 in family, 1 single, 3 worked an average of 9½ days, at \$3.33; 1 stone mason, 6 in family, 2 days, at \$3; 1 tinner, 5 in family, 26 days, at \$2.25; 1 tinner, single, 26 days, at \$1.15 (apprentice). Parents, 77; sons, 35; daughters, 41; other persons, 7; unmarried men, 5; native-born adults, 73; foreign-born adults, 8. Average age of employed, men, 34.8. Average number of hours employed daily, men, 9.9. Paid weekly, 15; semi-monthly, 9; monthly, 11; had wages withheld, 5—17 days each; preferred weekly payment of wages, 21; belonged to labor organizations, 16. Had life insurance, 7; amount, \$22,900. Had weekly benefits, 2; average amount, \$5.50. Owned homes, 15; homes mortgaged 7; aggregate amount, \$2,552; average annual interest, 8½ per cent. Had personal property mortgaged, 1; monthly interest, 30 per cent. Highest daily wages, brick-layer, \$5; lowest, laborer, 66 cents. Highest family income, carpenter, \$94.50; lowest, laborer, \$1.40. Highest family expense, carpenter, \$87; lowest, laborer, \$12. Average number rooms rented, 2.8; monthly rent per room, \$2.81. Coal per ton, \$4.46.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	45	165	3½	21.23 of all persons reported.
Persons employed.....	45	35	.....	39.47 of 76, total number reported
Children at school.....	14	30	.....	46.66 were below the average.
Men's daily wages.....	30	\$66 02	\$2 20	67.00 " " " "
Women's daily wages.....	3	2 00	66	50.00 " " " "
Sons' daily wages.....	2	3 50	1 75	47.05 of working days.
Days employed, men.....	30	367	12½	11.64 " " " "
" " women.....	3	9	3	82.69 " " " "
" " sons.....	2	43	21½	91.23 of gross earnings.
Men's monthly earnings.....	30	\$792 84	\$26 43	0.60 " " " "
Women's monthly earnings.....	3	6 00	2 00	8.17 " " " "
Sons' monthly earnings.....	2	70 75	35 37	18.64 of gross incomes.
Incomes from other sources.....	9	199 00	22 11	67.16 of gross expenses.
Aggregate incomes and earnings.....	45	1,068 59	23 74	62.22 were below the average.
Daily income per family.....	45	.....	76	.....
Monthly income per person.....	165	.....	6 48	.....
Daily income per person.....	165	.....	20½	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	40	\$524 23	\$13 10	33.47 of gross expenses.
Fresh meat.....	36	127 55	3 27	7.99 " " " "
Clothing.....	18	112 52	6 25	7.60 " " " "
Fuel.....	37	227 15	6 14	14.23 " " " "
Rent.....	24	193 75	8 07	12.20 " " " "
Sickness.....	19	43 80	2 31	2.74 " " " "
Interest, insurance, taxes.....	5	48 87	9 77	3.06 " " " "
Education.....	32	55 12	1 72	3.45 " " " "
Society dues.....	17	19 97	1 17	1.25 " " " "
Boarding.....	7	104 75	14 97	6.26 " " " "
Sundries.....	24	133 81	5 55	8.35 " " " "
Aggregate family expenses.....	45	1,591 02	35 46	32.84 above gross income.
Daily expenses per family.....	45	.....	1 14	46.66 were below the average.
Monthly expenses per person.....	165	.....	9 64	.....
Daily expenses per person.....	165	.....	31½	.....
Incomes above expenses.....	13	133 72	10 28	12.51 of gross income.
Expenses above incomes.....	32	656 15	20 50	61.40 more than gross income.
Net deficit.....	45	522 43	11 61	48.89 above gross incomes.

Below the average: 23 family incomes, 21 family expenses, 14 father's daily wages.

TOPEKA—CONTINUED.

MONTHLY RETURNS FOR FEBRUARY, 1888.

Two bricklayers, with an average of 3 persons in family, worked $6\frac{1}{2}$ days at \$5 per day; 15 carpenters, 3.4 in family, 11.5 days at \$2.25; 1 stationary engineer, 4 persons in family, 30 days at \$1.16; 1 gardener, 3 in family, $3\frac{1}{2}$ days at \$2.80; 3 laborers, averaging 2 in family, $5\frac{1}{3}$ days at \$1.25; 1 machinists, 3 in family, 8 days at \$2.26; 1 nurse, 5 in family, 8 days, \$2; 8 stone-cutters averaged $3\frac{1}{4}$ in family, $6\frac{3}{4}$ days, \$3.55; 3 stone-masons, averaging $3\frac{2}{3}$ in family, worked $4\frac{1}{2}$ days at \$3.33; 1 teamster, 6 in family, 14 days at \$1; 2 tinnners averaged 3 in family, 26 days, \$1.70 per day. Parents, 60; sons, 22; daughters, 41; other persons, 3; unmarried men, 8; native-born adults, 55; foreign-born adults, 12. Average age of employed: men, 37; sons, 25. Average number of hours employed daily: men, 9.5. Paid weekly, 19; semi-monthly, 9; monthly, 8; had wages withheld, 7—14 days each; preferred weekly payment of wages, 22; belonged to labor organizations, 22; had life insurance, 11; amount, \$29,050; had weekly benefits, 2; amount, \$8; compelled to take store pay, 1. Owned homes, 11; homes mortgaged, 6; aggregate amount, \$2,802; annual interest, 8.7 per cent. Had personal property mortgaged, 3; monthly interest, 14 per cent. Highest daily wages, bricklayer, \$5; lowest, laborer, \$1. Highest family income, carpenter, \$94.50; lowest, carpenter, \$1. Highest family expense, carpenter, \$90.24; lowest, laborer, \$11. Average number rooms rented, 3; monthly rent per room, \$3.05. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.60.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	39	134	$3\frac{4}{10}$	27.61 of all persons reported.
Persons employed.....	21	37	.....	38.25 of 63, total number reported
Children at school.....	31	24	.....	61.29 were below the average.
Men's daily wages.....	3	\$78 58	\$2 53	66.00 " " "
Women's daily wages.....	3	3 84	1 28	66.00 " " "
Sons' daily wages.....	3	4 70	1 56	66.00 " " "
Days employed, men.....	31	502	$16\frac{2}{10}$	64.77 of working days.
" " women.....	3	36	12	48.00 " " "
" " sons.....	3	65	$21\frac{6}{10}$	86.66 " " "
Men's monthly earnings.....	31	\$842 07	\$27 16	85.84 of gross earnings.
Women's monthly earnings.....	3	42 00	14 00	4.28 " " "
Sons' monthly earnings.....	3	97 15	32 38	9.88 " " "
Incomes from other sources.....	5	95 00	19 00	8.82 of gross incomes.
Aggregate incomes and earnings.....	39	1,076 22	30 16	75.81 of gross expenses.
Daily income per family.....	39	.....	1 04	46.15 were below the average.
Monthly income per person.....	134	.....	8 03	.....
Daily income per person.....	134	.....	$27\frac{6}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	32	\$433 29	\$13 54	30.73 of gross expenses.
Fresh meat.....	30	117 10	3 90	8.25 " " "
Clothing.....	21	144 55	6 88	10.02 " " "
Fuel.....	28	135 27	4 83	9.53 " " "
Rent.....	22	207 50	9 44	14.62 " " "
Sickness.....	13	46 80	3 60	3.29 " " "
Interest, insurance, taxes.....	8	32 90	4 11	2.31 " " "
Education.....	22	27 90	1 27	1.96 " " "
Society dues.....	26	31 22	1 20	2.20 " " "
Boarding.....	8	124 00	15 50	8.73 " " "
Sundries.....	23	119 70	5 20	8.36 " " "
Aggregate family expenses.....	39	1,419 57	36 40	24.19 above gross income.
Daily expense per family.....	39	.....	1 25	61.54 were below the average.
Monthly expenses per person.....	134	.....	10 59	.....
Daily expense per person.....	134	.....	$36\frac{6}{10}$	.....
Incomes above expenses.....	12	215 03	17 92	19.98 of gross income.
Expenses above incomes.....	27	558 38	20 68	51.89 more than gross income.
Net deficit.....	39	343 35	8 80	31.91 above gross incomes.

Below the average: 18 family incomes, 24 family expenses, 19 father's daily wages.

TOPEKA—CONTINUED.

MONTHLY RETURNS FOR MARCH, 1888.

Twelve carpenters, average 4.4 persons to family, worked 19.1 days at \$2.32 per day; 1 clerk, 4 in family, 26 days, \$2.66; 1 stationary engineer, 4 in family, 31 days, \$1.66; 1 foreman, 4 in family, 15 days, \$2.33; 21 laborers, average 4.4 persons to family, 7.4 days, \$1.18; 1 lather, 3 in family, 16 days, \$2; 1 painter, 2 in family, 1 day, \$1.75; 1 printer, 6 in family, 12 days, \$2.50; 3 stone-cutters, average 4.7 to family, 9½ days, \$3.60; 1 stonemason, 5 in family, 10 days, \$3.25; 1 tinner, single, 27 days, \$1.16 per day. Parents, 82; sons, 42; daughters, 40; other persons, 22; unmarried men, 2; native-born adults, 76; foreign-born adults, 7. Average age of employed, men, 38; women, 40. Average number of hours employed daily, men, 9.4. Paid weekly, 22; semi-monthly, 8; monthly, 10; had wages withheld, 7—13 days each; preferred weekly payment of wages, 33; belonged to labor organizations, 15; engaged in strike, 2;* locked out, 2;† had life insurance, 12; amount, \$21,850; owned homes, 18; homes mortgaged, 8; aggregate amount, \$2,775; annual interest, 8½ per cent. Had personal property mortgaged, 2; monthly interest, 6 per cent. Highest daily wages, stone-cutter, \$3.60; lowest, laborers, 60 cents. Highest family income, carpenter, \$90; lowest, laborer, \$1.50. Highest family expense, carpenter, \$118.25; lowest, laborer, \$15. Average number rooms rented, 3.3; monthly rent per room, \$3.17. Average price of fresh meat per pound, 12 cents; coal per ton, \$4.50.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	44	188	4 ³ / ₄	.....
Persons employed.....	44	43	.....	22.87 of all persons reported.
Children at school.....	15	31	.....	37.80 of 82, total number reported
Men's daily wages.....	39	\$76 51	\$1 96	51.28 were below the average.
Women's daily wages.....	4	2 39	60	75.00 " " " "
Days employed, men.....	39	414	10 ³ / ₄	38.31 of working days.
" " women.....	4	57	11 ⁷ / ₁₀	52.77 " " " "
Men's monthly earnings.....	39	\$1,028 73	\$26 40	96.40 of gross earnings.
Women's monthly earnings.....	4	38 50	9 62	3.60 " " " "
Incomes from other sources.....	4	155 25	38 81	12.70 of gross incomes.
Aggregate incomes and earnings.....	44	1,222 48	27 78	79.63 of gross expenses.
Daily income per family.....	44	.....	90	36.36 were below the average.
Monthly income per person.....	188	.....	6 50	.....
Daily income per person.....	188	.....	21	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	43	\$585 90	\$13 62	38.14 of gross expenses.
Fresh meat.....	39	157 61	4 04	10.26 " " " "
Clothing.....	22	106 65	4 85	6.94 " " " "
Fuel.....	36	145 12	4 03	9.45 " " " "
Rent.....	27	247 58	9 17	16.12 " " " "
Sickness.....	17	83 90	4 94	5.46 " " " "
Interest, insurance, taxes.....	5	14 10	2 82	0.96 " " " "
Education.....	16	32 24	2 01	2.10 " " " "
Society dues.....	18	24 55	1 36	1.60 " " " "
Boarding.....	3	34 00	11 33	2.22 " " " "
Sundries.....	30	103 50	3 45	6.75 " " " "
Aggregate family expenses.....	44	1,535 20	34 89	20.37 above gross income.
Daily expenses per family.....	44	.....	1 12	61.36 were below the average.
Monthly expenses per person.....	188	.....	8 16	.....
Daily expenses per person.....	188	.....	23 ³ / ₁₀	.....
Incomes above expenses.....	15	185 46	12 36	15.17 of gross income.
Expenses above incomes.....	29	498 18	17 18	40.75 more than gross income.
Net deficit.....	44	312 72	7 11	25.58 above gross incomes.

Below the average: 16 family incomes, 27 family expenses, 20 father's daily wages.

* Master Stonecutters' Association resolved not to employ Union men; settled by the State-House contractors refusing to enforce the rule.

† On account of the C. B. & Q. Railroad strike.

TOPEKA — CONTINUED.

MONTHLY RETURNS FOR APRIL, 1888.

Nine carpenters, average 5.1 persons to family, worked 20.3 days at \$2.56 per day; 1 clerk, 4 in family, 25 days at \$2.66; 1 stationary engineer, 4 in family, 30 days at \$1.17; 1 gas-fitter, 2 in family, 18 days at \$2.50; 7 laborers, average 4 to family, 17 days at \$1.44; 1 printer, 6 in family, 24 days at \$2.50; 2 stone-cutters, average 5 to family, 25½ days at \$3.60. Parents, 44; sons, 18; daughters, 26; other persons, 8. Native-born adults, 39; foreign-born adults, 5. Average age of employed, men, 37; women, 24. Average number of hours employed daily, men, 9½. Paid weekly, 5; semi-monthly, 9; monthly 7; had wages withheld, 2—9 days each; preferred weekly payment of wages, 19. Belonged to labor organizations, 11. Had life insurance, 9; amount, \$19,750. Owned homes, 9; homes mortgaged, 5; aggregate amount, \$2,050; annual interest, 8.1 per cent.; had personal property mortgaged, 2; monthly interest, 14½ per cent. Highest daily wages, stone-cutter, \$3.60; lowest, laborer, \$1.25. Highest family income, carpenter, \$103.50; lowest, laborers, \$18.75. Highest family expense, carpenter, \$73.50; lowest, laborer, \$17. Average number of rooms rented, 3.3; monthly rent per room, \$2.81. Coal per ton, \$4.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	22	96	4½	.....
Persons employed.....	22	24	.....	25.00 of all persons reported.
Children at school.....	5	9	.....	20.00 of 44, total number reported
Men's daily wages.....	21	\$46 63	\$2 22	38.00 were below the average.
Women's daily wages.....	2	2 09	1 04	50.00 " " " "
Days employed, men.....	21	431	19½	82.00 of working days.
" " women.....	2	8	4	16.00 " " " "
Men's monthly earnings.....	21	\$972 30	\$46 30	99.30 of gross earnings.
Women's monthly earnings.....	2	7 45	3 72	0.70 " " " "
Incomes from other sources.....	4	87 50	21 87	8.20 of gross incomes.
Aggregate incomes and earnings.....	22	1,067 25	48 51	14.45 above gross expenses.
Daily income per family.....	22	.....	1 62	0.64 were below the average.
Monthly income per person.....	96	.....	11 12	.....
Daily income per person.....	96	.....	37	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	22	\$366 13	\$16 64	32.29 of gross expenses.
Fresh meat.....	19	79 73	4 19	8.56 " " " "
Clothing.....	17	98 36	5 78	10.56 " " " "
Fuel.....	16	47 80	2 99	5.13 " " " "
Rent.....	13	121 00	9 31	13.00 " " " "
Sickness.....	8	12 95	1 62	1.39 " " " "
Interest, insurance, taxes.....	4	29 21	7 30	3.14 " " " "
Education.....	11	13 17	1 29	1.42 " " " "
Society dues.....	12	9 80	82	1.06 " " " "
Boarding.....	2	36 00	18 00	3.87 " " " "
Sundries.....	16	117 22	7 33	12.58 " " " "
Aggregate family expenses.....	22	932 37	42 38	87.36 of gross income.
Daily expenses per family.....	22	.....	1 41	50.00 were below the average.
Monthly expenses per person.....	96	.....	9 71	.....
Daily expenses per person.....	96	.....	32½	.....
Incomes above expenses.....	15	211 06	14 07	19.78 of gross income.
Expenses above incomes.....	7	76 18	10 88	7.14 more than gross income.
Net surplus.....	22	134 88	6 13	12.64 of gross incomes.

Below the average: 14 family incomes, 11 family expenses, 8 father's daily wages.

TOPEKA—CONTINUED.

MONTHLY RETURNS FOR MAY, 1888.

One car-repairer, with 4 persons in family, worked 25 days at \$2.25 per day; 7 carpenters (1 single), average 4½ to a family, 21.7 days, \$2.41; 2 clerks, average 4 to a family, 27 days, \$2.07; 8 stationary engineers, average 4.3 to a family, 27.6 days, \$2.63; 1 stationary fireman, 4 in family, 27 days, \$2; 6 laborers (1 single), 3.4 to a family, 20.5 days, \$1.50; 2 machinists, average 2.5 to a family, 26 days, \$1.77; 1 moulder (single), 26 days, \$2.50; 1 painter, 3 in family, 18 days, \$2.25; 1 printer, 3 in family, 20 days, \$2.25; 4 stone-cutters (1 single), average 3.3 to family, 24.7 days, \$3.45; 1 stone-mason, 4 in family, 22 days, \$2 per day. Parents, 62; sons, 21; daughters, 28; other persons, 9; unmarried men, 4. Native-born adults, 58; foreign-born adults, 8. Average age of employed: men, 33.4; women, 28; sons, 16. Average number of hours employed daily: men, 9.7. Paid weekly, 11; semi-monthly, 11; monthly, 7; had wages withheld, 1—14 days each; preferred weekly payment of wages, 18. Belonged to labor organizations, 14. Had life insurance, 7; amount, \$13,850. Owned homes, 8; homes mortgaged, 3; aggregate amount, \$1,800; annual interest, 8 per cent. Highest daily wages, stationary engineer, \$3.70; lowest, machinist, \$1.15. Highest family income, stationary engineer, \$119; lowest, laborer, \$12. Highest family expense, stationary engineer, \$84.80; lowest, laborer, \$18. Average number rooms rented, 3.3; monthly rent per room, \$2.96. Coal per ton, \$4.25.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	35	124	3½	
Persons employed.....	35	36		29.01 of all persons reported.
Children at school.....	10	17		34.69 of 49, total number reported
Men's daily wages.....	34	\$79 54	\$2 34	52.94 were below the average.
Women's daily wages.....	1		1 00	
Sons' daily wages.....	1		2 00	
Days employed, men.....	34	712	20½	77.56 of working days.
“ “ women.....	1		3	11.11 “ “
“ “ sons.....	1		27	100.00 “ “
Men's monthly earnings.....	34	\$1,911 45	\$56 22	97.11 of gross earnings.
Women's monthly earnings.....	1	3 00	3 00	0.15 “ “
Sons' monthly earnings.....	1	54 00	54 00	2.74 “ “
Incomes from other sources.....	6	139 00	23 17	6.59 of gross incomes.
Aggregate incomes and earnings.....	35	2,107 45	60 21	34.73 above gross expenses.
Daily income per family.....	35		1 97	63.00 were below the average.
Monthly income per person.....	124		16 99	
Daily income per person.....	124		54½	
MONTHLY FAMILY EXPENSES.				
Groceries.....	31	\$560 65	\$18 08	35.86 of gross expenses.
Fresh meat.....	26	107 71	4 14	6.89 “ “
Clothing.....	26	242 37	9 32	15.50 “ “
Fuel.....	20	37 95	1 90	2.43 “ “
Rent.....	25	287 00	9 48	15.16 “ “
Sickness.....	9	39 35	4 37	2.51 “ “
Interest, insurance, taxes.....	2	9 30	4 65	0.59 “ “
Education.....	24	64 80	2 70	4.15 “ “
Society dues.....	15	19 65	1 31	1.26 “ “
Boarding.....	5	84 00	16 80	5.31 “ “
Sundries.....	22	161 39	7 44	10.32 “ “
Aggregate family expenses.....	35	1,564 17	44 69	74.22 of gross income.
Daily expenses per family.....	35		1 44	51.43 were below the average.
Monthly expenses per person.....	124		12 61	
Daily expenses per person.....	124		40 ⅞	
Incomes above expenses.....	28	572 18	20 43	27.15 of gross income.
Expenses above incomes.....	7	28 90	4 13	1.37 more than gross income.
Net surplus.....	35	543 28	15 52	25.78 of gross incomes.

Below the average: 22 family incomes, 18 family expenses, 18 father's daily wages.

TOPEKA — CONTINUED.

STATIONARY ENGINEERS' MONTHLY RETURNS FOR MAY, 1888.

One with 4 in family worked 27 days, at \$2 per day; 1 with 7, 31 days, \$3; 1 with 3, 27 days, \$3.70; 1 with 4, 27 days, \$2.78; 1 with 2, 28 days, \$2; 1 with 3, 27 days, \$3; 1 with 10, 29 days, \$3; 1 with 2, 27 days, \$1.62. Parents, 16; sons, 9; daughters, 6; other persons, 4; native-born adults, 14; foreign-born adults, 2. Average age of employed: men, 36.4. Average number of hours employed daily: men, 10 $\frac{1}{4}$. Paid weekly, 3; semi-monthly, 4; monthly, 1; preferred weekly payment of wages, 5. Belonged to labor organizations, 6. Had life insurance, 3; amount, \$7,500. Owned homes, 3; homes mortgaged, 2; aggregate amount, \$1,400; annual interest, 8 per cent. Highest daily wages, \$3.70; lowest, \$1.62. Highest family income, \$119; lowest, \$43.74. Highest family expenses, \$84.80; lowest, \$36.75. Average number of rooms rented, 4 $\frac{1}{2}$; monthly rent per room, \$2.76. Coal per ton, \$4.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	8	35	4 $\frac{3}{10}$	
Persons employed.....	8	8		23.00 of all persons reported.
Children at school.....	5	11		73.00 of 15, total number reported
Men's daily wages.....	8	\$21 10	\$2 63	37.00 were below the average.
Days employed, men.....	8	221	27 $\frac{7}{10}$	89.00 of all days in the month.
Men's monthly earnings.....	8	\$583 74	72 79	100 of gross earnings.
Incomes from other sources.....	2	44 00	\$22 00	7.00 of gross income.
Aggregate incomes and earnings.....	8	627 74	78 47	51.01 above gross expenses.
Daily income per family.....	8		2 53	50.00 were below the average.
Monthly income per person.....	35		17 94	
Daily income per person.....	35		57 $\frac{9}{10}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	8	\$171 00	\$21 38	41.29 of gross expenses.
Fresh meat.....	6	35 00	5 83	8.44 " "
Clothing.....	6	69 50	11 50	16.77 " "
Fuel.....	5	10 75	2 15	2.58 " "
Rent.....	5	58 00	11 60	14.00 " "
Sickness.....	2	11 00	5 50	2.64 " "
Interest, insurance, taxes.....	2	8 30	4 15	2.00 " "
Education.....	6	6 00	1 00	1.43 " "
Society dues.....	5	3 25	65	0.77 " "
Sundries.....	6	41 75	6 96	10.08 " "
Aggregate family expenses.....	8	414 55	51 94	66.25 of gross income.
Daily expenses per family.....	8		1 71	50.00 were below the average.
Monthly expenses per person.....	35		11 87	
Daily expenses per person.....	35		38 $\frac{3}{10}$	
Incomes above expenses.....	7	220 99	31 57	35.20 of gross income.
Expenses above incomes.....	1	9 00	9 00	1.43 more than gross income.
Net surplus.....	8	211 99	26 49	33.77 of gross incomes.

Below the average: 4 family incomes, 4 family expenses, 3 father's daily wages.

TOPEKA—CONTINUED.

MONTHLY RETURNS FOR JUNE, 1888.

One bricklayer with 6 in family, worked 26.3 at \$4 per day; 8 carpenters, average 3.7 in family, 2 idle, 21.6 days, \$2.42; 1 car repairer, 4 in family, 26 days, \$2.25; 1 chipper, 3 in family, 26 days, \$1.75; 1 clerk, 4 in family, 26 days, \$2.56; 6 laborers, average 4 in family, 22.3 days, \$1.58; 2 machinists, 2.5 in family, 28 days, \$1.83; 1 plasterer, 6 in family, 17 days, \$3.50; 1 printer, 6 in family, 26 days, \$2.50; 11 stationary engineers, 4.3 in family, 27.6 days, \$2.59; 6 stone-cutters, 3.7 in family, 21.5 days, \$3.60; 1 stonemason, 5 in family, 10 days, \$3.50; 1 railroad street watchman, 7 in family, 30 days, \$1.20 per day. Parents, 80; sons, 26; daughters, 45; other persons, 14; unmarried men, 2. Native-born adults, 71; foreign-born adults, 9. Average age of employed: men, 36.6; sons, 15.5. Average number of hours employed daily: men, 9.9. Paid weekly, 7; semi-monthly, 17; monthly, 15; had wages withheld, 3—14 days each; preferred weekly payment of wages, 28; belonged to labor organizations, 16; had life insurance, 13; amount, \$37,550; had weekly benefits, 1; average amount, \$15. Owned homes, 11; homes mortgaged, 4; aggregate amount, \$3,025; annual interest, 8 per cent. Highest daily wages, bricklayer, \$4; lowest, stationary engineer, \$1.06 and board. Highest family income, stone-cutter, \$115.30; lowest, stationary engineer, \$32 and boarding. Highest family expense, stone-cutter, 137.25; lowest, laborer, \$12.75. Average number rooms rented, 3.5; monthly rent per room, \$2.84.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in family.....	41	170	4 ¹ / ₁₀	.....
Persons employed.....	41	41	.....	24.12 of all persons reported.
Children at school.....	12	23	.....	32.42 of 71, total number reported
Men's daily wages.....	39	\$98 78	\$2 53	58.97 were below the average.
Sons' daily wages.....	2	1 73	86	50.00 " " "
Days employed, men.....	39	941	24 ¹ / ₁₀	92.80 of working days.
sons.....	2	52	26	100.00 " " "
Men's monthly earnings.....	39	\$2,322 16	\$59 54	98.10 of gross earnings.
Sons' monthly earnings.....	2	45 00	22 50	1.90 " " "
Incomes from other sources.....	6	282 00	47 00	10.64 of gross incomes.
Aggregate incomes and earnings.....	41	2,649 16	64 61	26.39 above gross expenses.
Daily income per family.....	41	.....	2 15	53.65 were below the average.
Monthly income per person.....	170	.....	15 58	.....
Daily income per person.....	170	.....	57 ⁹ / ₁₀	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	39	\$724 85	\$18 58	34.52 of gross expenses.
Fresh meat.....	34	185 60	5 46	8.91 " " "
Clothing.....	30	241 42	8 05	11.53 " " "
Fuel.....	29	59 45	2 05	2.83 " " "
Rent.....	27	267 50	9 91	12.77 " " "
Sickness.....	16	100 80	6 27	4.81 " " "
Interest, insurance, taxes.....	15	120 04	8 00	5.73 " " "
Education.....	25	30 50	1 22	1.45 " " "
Society dues.....	27	31 30	1 16	1.49 " " "
Boarding.....	4	68 00	17 00	3.33 " " "
Sundries.....	27	264 51	9 79	12.63 " " "
Aggregate family expenses.....	41	2,093 97	51 07	79.04 of gross income.
Daily expenses per family.....	41	.....	1 70	56.09 were below the average.
Monthly expenses per person.....	170	.....	12 31	.....
Daily expenses per person.....	170	.....	41	.....
Incomes above expenses.....	29	651 29	22 46	24.58 of gross income.
Expenses above incomes.....	10	96 10	9 61	3.62 more than gross income.
Net surplus.....	41	555 19	13 54	20.96 of gross incomes.

Below the average: 22 family incomes, 23 family expenses, 23 father's daily wages.

TOPEKA—CONTINUED.

MONTHLY RETURNS FOR JULY, 1888.

One bookbinder, 2 persons in family, worked 26 days at \$2.66 per day; 1 bricklayer, 4 in family, 12 days, \$4.50; 4 carpenters, average 5 in family, 14.3 days, \$2.20; 1 clerk, 4 in family, 26 days, \$2.56; 11 laborers, average 3.9 in family, 22.3 days, \$1.59; 1 machinist, 2 in family, 26 days, \$2.50; 1 painter, 3 in family, 26 days, \$2; 1 printer, 4 in family, 26 days, \$2.50; 7 stationary engineers, average 6 in family, 27.8 days, \$2.83; 4 stone-cutters, average 3 in family, 23.2 days, \$3.60; 2 stonemasons, average 5 in family, 20.5, \$3.12; 1 tinner, 2 in family, 11 days, \$2; 1 railroad watchman, 7 in family, 31 days, \$1.20 per day. Parents, 70; sons, 36; daughters, 36; other persons, 14. Native-born adults, 57; foreign-born adults, 13. Average age of employed: men, 38.4; women, 39; sons, 15.5. Average number of hours employed: men, 9.9. Paid weekly, 5; semi monthly, 20; monthly, 8; had wages withheld, 2—14 days each; preferred weekly payment of wages, 27. Belonged to labor organizations, 9. Had life insurance, 9; amount, \$30,000. Owned homes, 12. Homes mortgaged, 4; aggregate amount, \$3,100, annual interest $8\frac{1}{2}$ per cent. Highest daily wages, bricklayer, \$4.50; lowest, railroad watchman, \$1.20; highest family income, stationary engineer, \$116.50; lowest, carpenter, \$12.50; highest family expense, bookbinder, \$106.25; lowest, laborer, \$18.25. Average number rooms rented, 3.4; monthly rent per room, \$2.88.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	36	156	$4\frac{3}{10}$	.....
Persons employed.....	36	40	.....	26.91 of all persons reported.
Children at school.....	9	21	.....	29.16 of 72, total number reported
Men's daily wages.....	36	\$86 55	\$2 40	47.00 were below the average.
Women's daily wages.....	2	2 15	1 07	50.00 were below the average.
Sons' daily wages.....	2	1 66	83	50.00 were below the average.
Days employed, men.....	36	816	$22\frac{7}{10}$	87.18 of working days.
“ “ women.....	2	29	$14\frac{5}{10}$	53.70 “ “
“ “ sons.....	2	52	25	100.00 “ “
Men's monthly earnings.....	36	\$1,966.88	\$54 63	96.19 of gross earnings.
Women's monthly earnings.....	2	33 00	16 50	1.61 “ “
Sons' monthly earnings.....	2	45 00	22 50	2.20 “ “
Incomes from other sources.....	5	216 52	43 30	9.57 of gross incomes.
Aggregate incomes and earnings.....	36	2,261 40	62 82	25.89 above gross expenses.
Daily income per family.....	36	.....	2 03	50.00 were below the average.
Monthly income per person.....	156	.....	14 49	.....
Daily income per person.....	156	.....	$46\frac{4}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	36	\$674 40	\$18 73	37.54 of gross expenses.
Fresh meat.....	33	152 35	4 62	8.48 “ “
Clothing.....	29	166 40	5 74	9.27 “ “
Fuel.....	29	49 50	1 71	2.76 “ “
Rent.....	23	227 50	8 89	12.66 “ “
Sickness.....	21	96 15	4 58	5.35 “ “
Interest, insurance, taxes.....	13	81 45	6 26	4.53 “ “
Education.....	21	47 24	2 25	2.63 “ “
Society dues.....	18	28 30	1 58	1.57 “ “
Boarding.....	2	36 00	18 00	2.02 “ “
Sundries.....	27	237 03	8 78	13.19 “ “
Aggregate family expenses.....	36	1,796 32	49 90	79.43 of gross income.
Daily expenses per family.....	36	.....	1 61	52.77 were below the average.
Monthly expenses per person.....	156	.....	11 51	.....
Daily expenses per person.....	156	.....	$37\frac{1}{10}$	.....
Incomes above expenses.....	27	592 52	21 94	26.20 of gross income.
Expenses above incomes.....	8	127 44	15 93	5.63 more than gross income.
Net surplus.....	36	465 08	12 92	20.57 of gross incomes.

Below the average: 18 family incomes, 19 family expenses, 17 father's daily wages.

TOPEKA — CONTINUED.

MONTHLY RETURNS FOR AUGUST, 1888.

Four bricklayers, average 6.5 persons to family, worked 18 days at \$4.81 per day; 10 carpenters, average 3.5 to family, 20.1 days at \$2.35; 1 clerk, 5 in family, 27 days at \$2.47; 9 laborers, average 5.1 to family, 22.3 days at \$1.61; 1 machinist, 2 in family, 26 days at \$2.50; 6 stone-cutters, average 4.3 to family, 25 days at \$3.60; 1 stone-mason, single, 18 days at \$3.25; 4 stationary engineers, average 3.2 to family, 28.7 days at \$2.54 per day. Parents, 67; sons, 34; daughters, 47; other persons, 6; unmarried men, 2. Native-born adults, 55; foreign-born adults, 12. Average age of employed, men, 37.5. Average number of hours employed daily, men, 9.6. Paid weekly, 11; semi-monthly, 18; monthly, 7; had wages withheld, 2—16 days each; preferred weekly payment of wages, 23. Belonged to labor organizations, 14. Had life insurance, 15; amount, \$30,600; had weekly benefits, 4; average amount, \$5.75. Owned homes, 14; homes mortgaged, 7; aggregate amount, \$1,723; annual interest, 8.4 per cent. Highest daily wages, bricklayers, \$6; lowest, stationary engineer, \$1.03. Highest family income, bricklayer, \$108; lowest, laborer, \$27. Highest family expense, bricklayer, \$82; lowest, carpenter, \$20.10. Average number of rooms rented, 3.4; monthly rent per room, \$3.13.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	36	154	4 $\frac{3}{10}$	25.00 of all persons reported.
Persons employed.....	36	39	\$2 73	61.00 were below the average.
Men's daily wages.....	36	\$98 21	2 $\frac{1}{2}$	83.43 of working days.
Sons' daily wages.....	1	1 00	1 00	74.00 " "
Days employed, men.....	36	811	22 $\frac{1}{2}$	97.16 of gross earnings.
Days employed, sons.....	1	20	20	1.94 " "
Men's monthly earnings.....	36	\$2,157 73	\$59 94	0.90 " "
Women's monthly earnings.....	2	43 10	21 15	4.26 of gross incomes.
Sons' monthly earnings.....	1	20 02	20 00	33.97 above gross expenses.
Incomes from other sources.....	4	99 00	24 75	44.00 were below the average.
Aggregate incomes and earnings.....	36	2,319 83	64 44	
Daily income per family.....	36		2 08	
Monthly income per person.....	154		15 06	
Daily income per person.....	154		48 $\frac{3}{4}$	
MONTHLY FAMILY EXPENSES.				
Groceries.....	34	\$603 75	\$17 76	34.87 of gross expenses.
Fresh meat.....	34	155 45	4 57	8.98 " "
Clothing.....	25	210 44	8 42	12.15 " "
Fuel.....	31	72 70	2 34	4.20 " "
Rent.....	20	213 00	10 65	12.30 " "
Sickness.....	23	118 50	5 15	6.84 " "
Interest, insurance, taxes.....	5	47 60	9 52	2.74 " "
Education.....	23	50 60	2 20	2.93 " "
Society dues.....	26	38 15	1 47	2.20 " "
Boarding.....	3	41 00	13 66	2.37 " "
Sundries.....	27	180 41	6 68	10.42 " "
Aggregate family expenses.....	36	1,731 60	48 10	74.54 of gross income.
Daily expenses per family.....	36		1 55	47.00 were below the average.
Monthly expenses per person.....	154		11 24	
Daily expenses per person.....	154		36 $\frac{1}{2}$	
Incomes above expenses.....	29	644 26	22 21	27.77 of gross income.
Expenses above incomes.....	7	56 08	8 00	2.41 more than gross income.
Net surplus.....	36	588 23	16 34	25.36 of gross incomes.

Below the average: 16 family incomes, 17 family expenses, 22 father's daily wages.

TOPEKA—CONTINUED.

MONTHLY RETURNS FOR SEPTEMBER, 1888.

Nine carpenters, average 4.3 persons to family, worked 23.2 days at \$2.36 per day; 1 clerk, 5 in family 25 days at \$2.66; 3 laborers, average 4.3 to family, 13.3 days at \$1.50; 1 printer, 3 in family, 21 days at \$2.25; 6 stationary engineers, average 4 to family, 28.3 days at \$2.66; 2 stone-cutters, average 4.5 to family, 23 days at \$3.60; 2 stonemasons, average 4.5 to family, 16.5 days at \$2.62; 2 watchmen, railroad, average 6 to family, 31 days at \$1.22 per day. Parents, 52; sons, 20; daughters, 33; other persons, 9. Native-born adults, 42; foreign-born adults, 8. Average age of employed, men, 34.8; sons, 15.3. Average number of hours employed daily, men, 9.8. Paid weekly, 10; semi-monthly, 5; monthly, 11; had wages withheld, 4—17 days each; preferred weekly payment of wages, 19; belonged to labor organizations, 10. Had life insurance, 9; amount, \$25,500; had weekly benefits, 2; average amount, \$9.50. Owned homes, 6; homes mortgaged, 2; aggregate amount, \$625; annual interest, 9.5 per cent. Highest daily wages, stone-cutters, \$3.60; lowest, stationary engineers, \$1.07, with board. Highest family income, stationary engineer, \$140; lowest, laborer, \$10.50. Highest family expenses, stationary engineer, \$97.35; lowest, laborer, \$17.75. Average number rooms rented, 3.8; monthly rent per room, \$2.95.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	26	114	4 $\frac{1}{10}$	.....
Persons employed.....	26	29	.....	25.00 of all persons reported.
Men's daily wages.....	26	\$62 54	\$2 41	46.00 were below the average.
Sons' daily wages.....	3	2 30	77	33.00 " " "
Days employed, men.....	26	608	23 $\frac{1}{10}$	90.46 of working days.
" sons.....	3	75	25	100.00 " " "
Men's monthly earnings.....	26	\$1,474 06	\$56 69	96.25 of gross earnings.
Sons' monthly earnings.....	3	57 50	19 17	3.75 " " "
Incomes from other sources.....	2	81 00	40 50	5.02 of gross incomes.
Aggregate incomes and earnings.....	26	1,612 56	62 02	25.33 above gross expenses.
Daily income per family.....	26	.....	2 07	54.00 were below the average.
Monthly income per person.....	114	.....	14 14	.....
Daily income per person.....	114	.....	47 $\frac{1}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	25	\$467 33	\$18 69	36.32 of gross expenses.
Fresh meat.....	25	113 35	4 53	8.81 " " "
Clothing.....	22	185 14	8 41	14.39 " " "
Fuel.....	23	108 05	4 70	8.40 " " "
Rent.....	19	215 00	11 32	16.71 " " "
Sickness.....	14	36 55	6 62	2.85 " " "
Interest, insurance, taxes.....	9	31 87	3 54	2.49 " " "
Education.....	16	26 17	1 64	2.03 " " "
Society dues.....	12	14 35	1 19	1.12 " " "
Sundries.....	19	88 65	4 67	6.88 " " "
Aggregate family expenses.....	26	1,286 56	49 48	79.78 of gross income.
Daily expenses per family.....	26	.....	1 65	54.00 were below the average.
Monthly expenses per person.....	114	.....	11 28	.....
Daily expenses per person.....	114	.....	37 $\frac{6}{10}$	.....
Incomes above expenses.....	21	359 40	17 11	22.28 of gross income.
Expenses above incomes.....	5	33 40	6 68	2.06 more than gross income.
Net surplus.....	26	326 40	6 68	20.22 of gross incomes.

Below the average: 10 family incomes, 14 family expenses, 12 father's daily wages.

TOPEKA—CONCLUDED.

MONTHLY RETURNS FOR OCTOBER, 1888.

Nine carpenters, averaging 3.3 persons to family, worked 23.2 days at \$2.53 per day; 2 clerks averaged 4.5 to family, 27 days at \$2.06; 11 laborers averaged 4 to family, 22.8 days at \$1.68; 2 laborers on railroad section, 2.5 to family, 26.5 days at \$1.25; 1 locomotive engineer, 3 in family, 31 days at \$2.75; 1 plasterer, 3 in family, 27 days at \$3; 5 stationary engineers averaged 4 to family, 27.8 days at \$2.31; 2 stone-cutters averaged 4.5 to family, 24.5 days at \$3.60; 2 watchmen (railroad), averaging 2 to family, worked 31 days at \$1.22 per day. Parents, 71; sons, 33; daughters, 30; other persons, 10; unmarried men, 3. Native-born adults, 63; foreign-born adults, 8. Average age of employed: men, 38.7; sons, 16.5. Average number of hours employed daily: men, 9.9. Paid weekly, 10; semi-monthly, 14; monthly, 14; had wages withheld, 5—17 days each; preferred weekly payment of wages, 23. Belonged to labor organizations, 13. Had life insurance, 9; amount, \$23,500; had weekly benefits, 2; average amount, \$4. Owned homes, 6; homes mortgaged, 6; aggregate amount, \$1,675; annual interest, 8.8 per cent. Had personal property mortgaged, 1; monthly interest, 10 per cent. Highest daily wages, stone-cutter, \$3.60; lowest, railroad watchman, \$1.20. Highest family income, stationary engineer, \$113.86; lowest, laborer, \$18. Highest family expense, carpenter, \$87.90; lowest, laborer, \$11.25. Average number rooms rented, 3.2; monthly rent per room, \$2.92.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	38	144	3 ⁸ / ₁₀	28.00 of all persons reported.
Persons employed.....	38	40	20	32.00 of 63, total number reported
Children at school.....	12	20	62	47.00 were below the average.
Men's daily wages.....	38	\$83 06	\$2 18	50.00 " " "
Sons' daily wages.....	2	1 24	62	90.00 of working days.
Days employed, men.....	38	924	24 ¹ / ₁₀	96.00 " " "
" sons.....	2	52	26	98.40 of gross earnings.
Men's monthly earnings.....	38	\$1,997 24	\$52 56	1.60 " " "
Sons' monthly earnings.....	2	32 50	16 25	2.21 of gross incomes.
Incomes from other sources.....	4	46 00	11 50	25.33 above gross expenses.
Aggregate incomes and earnings.....	38	2,075 74	54 62	55.00 were below the average.
Daily income per family.....	38	.....	1 76	.....
Monthly income per person.....	144	.....	14 41	.....
Daily income per person.....	144	.....	46 ⁵ / ₁₀	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	36	\$577 91	\$16 05	34.90 of gross expenses.
Fresh meat.....	34	138 49	4 07	8.36 " " "
Clothing.....	31	237 68	7 67	14.29 " " "
Fuel.....	29	187 20	6 46	11.30 " " "
Rent.....	25	236 50	9 46	14.28 " " "
Sickness.....	17	31 20	1 84	1.88 " " "
Interest, insurance, taxes.....	6	12 00	2 00	0.73 " " "
Education.....	21	31 80	1 51	1.92 " " "
Society dues.....	20	30 85	1 54	1.86 " " "
Boarding.....	3	50 00	16 66	3.02 " " "
Sundries.....	19	122 50	6 45	7.46 " " "
Aggregate family expenses.....	38	1,656 13	43 58	79.78 of gross income.
Daily expenses per family.....	38	.....	1 41	60.00 were below the average.
Monthly expenses per person.....	144	.....	11 50	.....
Daily expenses per person.....	144	.....	37 ¹ / ₁₀	.....
Incomes above expenses.....	26	523 10	20 12	25.20 of gross income.
Expenses above incomes.....	12	103 49	8 62	4.98 more than gross income.
Net surplus.....	38	419 61	11 04	20.22 of gross incomes.

Below the average: 21 family incomes, 23 family expenses, 18 father's daily wages.

WEIR CITY, CHEROKEE COUNTY.

MONTHLY RETURNS FOR APRIL, 1888.

One clerk, 7 persons in family, worked 27 days, at \$1.66; 9 coal miners, average 6.5 to family, 9.4 days, \$2.91; 2 stationary engineers, average 4 to family (1 idle), 30 days, \$2; 1 mine trackman, 8 in family, 25 days, \$2.60; 2 watchmen (single), average 30 days, \$1.50. Employed at piece work, 9; producing 9,070 bushels coal at $3\frac{1}{2}$ cents per bushel, \$317.45. Parents, 26; sons, 30; daughters, 27; unmarried men, 2; native-born adults, 9; foreign-born adults, 20. Average age of employed: men, 38.6; sons, 16.8. Average number of hours employed daily: men, 10.5. Paid monthly, 15; had wages withheld, 14—20 days each; preferred weekly payment of wages, 15; belonged to labor organizations, 6; compelled to take store pay, 2. Owned homes, 4. Highest daily wages, miner, \$5.27, father and son; lowest, clerk, \$1.66. Highest family income, stationary engineer,* \$81.61; lowest, miner, \$19.81. Highest family expense, stationary engineer, \$84; lowest, miner, \$24. Average number rooms rented, 3.1; monthly rent per room, \$2. Average price of fresh meat per pound, $12\frac{1}{2}$ cents; coal, per ton,† 50 cents.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	15	87	5 $\frac{1}{2}$	.....
Persons employed.....	15	23	.....	26.43 of all persons reported.
Children at school.....	10	24	.....	42.10 of 57, total number reported
Men's daily wages.....	14	\$35 47	\$2 53	50.00 were below the average.
Sons' daily wages.....	9	9 98	1 11	66.00 " " " "
Days employed, men.....	14	287	20 $\frac{1}{2}$	82.00 of working days.
" " sons.....	9	143	16	63.11 " " " "
Men's monthly earnings.....	14	\$485 87	\$34 70	78.04 of gross earnings.
Sons' monthly earnings.....	9	136 71	15 19	21.96 " " " "
Incomes from other sources.....	2	31 00	15 50	4.08 of gross income.
Aggregate incomes and earnings.....	15	653 58	43 57	97.42 of gross expenses.
Daily income per family.....	15	.....	1 45	53.33 were below the average.
Monthly income per person.....	87	.....	7 51	.....
Daily income per person.....	87	.....	25	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	13	\$308 90	\$23 68	46.04 of gross expenses.
Fresh meat.....	13	67 90	5 22	10.12 " " " "
Clothing.....	15	102 05	6 80	15.21 " " " "
Fuel.....	10	6 75	67	1.01 " " " "
Rent.....	11	68 00	6 18	10.13 " " " "
Sickness.....	11	15 90	1 45	2.37 " " " "
Interest, insurance, taxes.....	2	6 00	3 00	.89 " " " "
Education.....	7	14 90	2 13	2.22 " " " "
Society dues.....	8	8 35	1 04	1.25 " " " "
Boarding.....	2	34 00	17 00	5.07 " " " "
Sundries.....	9	38 15	4 24	5.69 " " " "
Aggregate family expenses.....	15	670 90	44 72	2.58 above gross income.
Daily expenses per family.....	15	.....	1 49	46.66 were below the average.
Monthly expenses per person.....	87	.....	7 71	.....
Daily expenses per person.....	87	.....	25 $\frac{7}{10}$	.....
Incomes above expenses.....	6	88 36	14 73	13.51 of gross income.
Expenses above incomes.....	9	105 68	11 74	16.16 more than gross income.
Net deficit.....	15	17 32	1 15	2.65 above gross incomes.

Below the average: 8 family incomes, 7 family expenses, 7 father's daily wages.

*Three sons at work mining. †Dig and haul it themselves.

WEIR CITY—CONCLUDED.

MONTHLY RETURNS FOR MAY, 1888.

Three coal miners, average 6.6 persons to family, worked 10.7 days at \$2.40; 1 coal-mine watchman, unmarried, 31 day at \$1.45. Employed at piece work, 3—producing 2,380 bushels coal at 3½ cents per bushel, \$83.30. Parents, 7; sons, 7; daughters, 6; other persons, 1; unmarried men, 1; native-born adults, 2; foreign-born adults, 4. Average age of employed: men, 40.5. Average number of hours employed daily: men, 10.5. Paid monthly, 4; had wages withheld, 4—20 days each; preferred weekly payment of wages, 2; belonged to labor organizations, 2; owned homes, 1. Highest daily wages, miner, \$2.87; lowest, watchman, \$1.45. Highest family income, miner, \$93.90; lowest, miner, \$22.54. Highest family expense, miner, \$87.30; lowest, watchman, \$24.75. Average number rooms rented, 3; monthly rent per room, \$0.77.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families	4	21	5½	
Persons employed.....	4	6		28.00 of all persons reported.
Children at school.....	2	3		23.00 of 13, total number reported.
Men's daily wages.....	4	\$8 84	\$2 21	50.00 were below the average.
Sons' daily wages.....	2	3 63	1 81	50.00 " " "
Daughter's daily wages.....	1		31	
Days employed, men.....	4	63	15½	58.00 of working days.
" " " sons.....	2	24	12	44.00 " " "
Men's monthly earnings	4	\$118 91	\$29 72	70.64 of gross earnings.
Sons' monthly earnings.....	2	41 40	20 70	24.60 " " "
Daughter's monthly earnings.....	1	8 00	8 00	4.76 " " "
Incomes from other sources.....	1	17 00	17 00	10.10 of gross incomes.
Aggregate incomes and earnings	4	185 31	46 32	1.51 above gross expenses.
Daily income per family.....	4		1 50	75.00 were below the average.
Monthly income per person.....	21		8 82	
Daily income per person.....	21		28¼	
MONTHLY FAMILY EXPENSES.				
Groceries.....	3	\$87 60	\$29 20	48.12 of gross expenses.
Fresh meat.....	3	20 20	6 40	11.10 " " "
Clothing.....	3	15 80	5 27	8.68 " " "
Fuel.....	3	1 60	53	0.88 " " "
Rent.....	3	21 00	7 00	11.55 " " "
Sickness.....	3	8 95	2 98	4.91 " " "
Education.....	1	1 25	1 25	0.68 " " "
Boarding.....	1	17 00	17 00	9.33 " " "
Sundries.....	3	8 65	2 88	4.75 " " "
Aggregate family expenses.....	4	182 05	45 51	98.51 of gross income.
Daily expenses per family.....	4		1 48	75.00 were below the average.
Monthly expenses per person.....	21		8 69	
Daily expenses per person.....	21		28	
Incomes above expenses.....	2	27 35	13 67	14.48 of gross income.
Expenses above incomes.....	2	24 09	12 02	12.99 more than gross income.
Net surplus.....	4	3 26	81	1.49 of gross incomes.

Below the average: 3 family incomes, 3 family expenses, 2 father's daily wages.

The following summary by trades shows at a glance the condition, as regards work and wages, of the several occupations represented in the preceding pages, and enables the craftsman to compare the wages paid, average amount of idle time, cost of living, and all matters affecting his own calling in the cities represented. These summaries are complete in every detail, and render any further explanation unnecessary.

RAILROAD BRAKEMEN.

ATCHISON.

Summary of seven monthly reports for four months; number received each month, average family membership, number of days worked, and wages per day were as follows: One for May, 3 persons in family, worked 30 days at \$1.80 per day; 2 for July, average 3 to family, 27 days at \$2; 3 for August average 5.3 to family, 29.6 days at \$1.92; 1 for October, 3 family, 24 days at \$1.88 per day. Parents, 14; sons, 6; daughters, 8. Native-born adults, 14. Average age of employed: men, 29.9. Average number of hours employed daily: men, 9. Paid monthly, 7; had wages withheld, 7—16 days each; preferred weekly payment of wages, 7. Belonged to labor organizations, 6. Had life insurance, 5; amount, \$6,000. Had weekly benefits, 1, average amount, \$12. Highest daily wages, \$2.04; lowest, \$1 77. Highest monthly family income, \$64; lowest, \$45. Highest monthly family expense, \$67.25; lowest, \$43.25. Average number of rooms rented, 2.8; monthly rent per room, \$2.89.

	<i>No. reported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	7	28	4	
Persons employed.....	7	7		25.00 of all persons reported.
Men's daily wages.....	7	\$13 64	\$1 95	43.00 were below the average.
Days employed, men.....	7	788	113	91.00 of all working days.
Men's earnings.....	7	\$1,548 00	221 14	100.00 of gross earnings.
Aggregate incomes and earnings.....	7	1,548 00	221 14	7.32 above gross expenses.
Daily income per family.....	7		1 78	57.00 were below the average.
Income per person.....	28		55 28	
Daily income per person.....	28		44 ⁶ / ₁₀	
FAMILY EXPENSES.				
Groceries.....	5	\$251 60	\$50 32	17.44 of gross expenses.
Fresh meat.....	5	73 80	14 76	5.11 " " "
Clothing.....	7	228 00	32 57	15.81 " " "
Fuel.....	3	7 00	2 33	0.48 " " "
Rent.....	5	162 00	32 40	11.23 " " "
Sickness.....	6	86 00	14 33	6.04 " " "
Interest, insurance, taxes.....	5	33 00	6 60	2.29 " " "
Education.....	7	56 00	8 00	3.88 " " "
Society dues.....	4	20 00	5 00	1.39 " " "
Boarding.....	7	346 00	49 43	23.99 " " "
Sundries.....	7	178 00	25 43	12.34 " " "
Aggregate family expenses.....	7	1,442 40	206 06	93.18 of gross income.
Daily expenses per family.....	7		1 66	71.00 were below the average.
Expenses per person.....	28		51 51	
Daily expenses per person.....	28		41 ⁵ / ₁₀	
Incomes above expenses.....	5	186 60	37 32	12.05 of gross income.
Expenses above incomes.....	2	81 00	20 25	5.23 more than gross income.
Net surplus.....	7	105 60	15 09	6.82 of gross incomes.

Below the average: 4 family incomes, 5 family expenses, 3 father's daily wages.

BUTCHERS, (PACKING-HOUSE.)

KANSAS CITY.

Summary of 28 monthly reports for 10 months, from January to October, 1888, inclusive. Number reporting each month, average family membership, days worked, and wages per day, were as follows: Two for January, 6 persons in family, worked 22 days at \$2.75 per day; 3 for February, average 6 to family, 26.3 days at \$2.75; 3 for March, average 6 to family, 25.3 days at \$2.75; 3 for April, average 6.6 to family, 22.7 days at \$2.92; 3 for May, average 6.6 to family, 22 days at \$2.92; 2 for June, average 5 to family, 19 days at \$2.87; 3 for July, average 6.3 to family, 22.3 days at \$2.75; 3 for August, average 5.7 to family, 25.7 days at \$2.58; 3 for September, average 6.3 to family, 25.3 days at \$2.75; 3 for October, average 5.3 to family, 27 days at \$2.58 per day. Parents, 56; sons, 53; daughters, 59; other persons, 1. Native-born adults, 26; foreign-born adults, 30. Average age of employed, men, 33.6; sons, 19. Average number of hours employed daily, men, 10. Paid weekly, 14; semi-monthly, 14; preferred weekly payment of wages, 5. Belonged to labor organizations, 24; had life insurance, 14; amount, \$22,500; had weekly benefits, 5; average amount, \$4. Owned homes, 8; homes mortgaged, 8; aggregate amount, \$3,050; annual interest, 8.7 per cent. Highest daily wages, \$3; lowest, \$2.25. Highest monthly family income, \$123; lowest, \$54. Highest monthly family expense, \$79; lowest, \$43.50. Average number of rooms rented, 3.8; monthly rent per room, \$3.10.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	28	169	6	.....
Persons employed.....	28	31	.....	18.00 of all persons reported.
Children at school.....	19	41	.....	36.00 of 112 total number reported
Men's daily wages.....	28	\$77 25	\$2 75	32.00 were below the average.
Sons' daily wages.....	3	5 00	1 66	33.00 " " " "
Days employed, men.....	28	6,660	234	91.48 of working days.
" " sons.....	3	720	240	92.30 " " " "
Men's earnings.....	28	\$18,285 00	\$653 03	93.87 of gross earnings.
Sons' earnings.....	3	1,195 00	398 33	6.13 " " " "
Incomes from other sources.....	3	120 00	40 00	0.61 of gross incomes.
Aggregate incomes and earnings.....	28	19,600 00	700 00	22.17 above gross expenses.
Daily income per family.....	28	.....	2 33	68.00 were below the average.
Income per person.....	169	.....	116 00	.....
Daily income per person.....	169	.....	38	.....
FAMILY EXPENSES.				
Groceries.....	28	\$4,977 50	\$177 77	31.03 of gross expenses.
Fresh meat.....	27	1,113 50	41 24	6.95 " " " "
Clothing.....	28	2,941 50	105 05	18.33 " " " "
Fuel.....	26	1,120 00	43 08	6.99 " " " "
Rent.....	20	2,855 00	117 75	14.68 " " " "
Sickness.....	25	740 00	29 60	4.61 " " " "
Interest, insurance, taxes.....	16	360 00	22 50	2.24 " " " "
Education.....	28	632 50	22 59	3.94 " " " "
Society dues.....	16	152 50	9 53	0.95 " " " "
Sundries.....	28	1,650 00	58 93	10.28 " " " "
Aggregate family expenses.....	28	16,042 50	572 95	81.85 of gross income.
Daily expenses per family.....	28	.....	1 87	68.00 were below the average.
Expenses per person.....	169	.....	94 92	.....
Daily expenses per person.....	169	.....	31 75	.....
Incomes above expenses.....	24	3,790 00	157 92	19.33 of gross income.
Expenses above incomes.....	4	232 50	58 12	1.18 more than gross income.
Net surplus.....	28	3,557 00	127 04	18.15 of gross incomes.

Below the average: 19 family incomes, 19 family expenses, 9 father's daily wages.

CAR-BUILDERS AND REPAIRERS.

KANSAS CITY.

Summary of 20 reports for 7 months, viz.: February, March, June, July, August, September, and October, 1888. Number reported each month, average family membership, days worked, and wages per day, were as follows: 1 for February, 3 persons in family, idle; 4 for March, average 6 persons to family, worked 17.7 days, at \$2.37 per day; 3 for June, average 5.6 to family, 24 days, at \$2.62; 3 for July, average 6 to family, 25 days, at \$2.50; 4 for August, average 6.2 to family, 25.2 days, at \$2.50; 3 for September, average 5.3 to family, 25 days, at \$2.25; 2 for October, average 9 to family, 24 days, at \$2.62. Parents, 39; sons, 44; daughters, 38; native-born adults, 35; foreign-born adults, 5. Average age of employed, men, 38; women, 36; sons, 16. Average number of hours employed daily, men, 10. Paid weekly, 13; semi-monthly, 6; preferred weekly payment of wages, 6; belonged to labor organizations, 2. Had life insurance, 11; amount, \$19,000. Had weekly benefits, 6; average amount, \$4. Owned homes, 8; homes mortgaged, 2; aggregate amount, \$550; annual interest, 8 per cent. Highest daily wages, \$2.75; lowest, \$2. Highest monthly family income, \$161; lowest, \$33.75. Highest monthly family expense, \$143.90; lowest, \$29.75. Average number rooms rented, 3.4; monthly rent per room, \$2.63.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	20	121	6	
Persons employed.....	20	25		20.00 of all persons reported.
Children at school.....	11	23		28.00 of 82, total number reported
Men's daily wages.....	19	\$46 25	\$2 43	31.00 were below the average.
Women's daily wages.....	1		2 00	
Sons' daily wages.....	5	5 57	1 11	
Days employed, men.....	19	3,059	161	88.00 of working days.
“ “ women.....	1	70	38.00	“ “
“ “ sons.....	5	910	182	99.00 “ “
Men's earnings.....	19	\$7,404 25	\$389 69	\$6.66 of gross earnings.
Women's earnings.....	1	140 00	140 00	1.64 “ “
Sons' earnings.....	5	999 25	199 85	11.70 “ “
Incomes from other sources.....	3	1,246 90	415 33	12.72 of gross incomes.
Aggregate incomes and earnings.....	20	9,789 50	489 47	20.81 above gross expenses.
Daily income per family.....	20		2 29	60.00 were below the average.
Income per person.....	121		80 90	
Daily income per person.....	121		26 1/2	
FAMILY EXPENSES.				
Groceries.....	20	\$2,840 25	\$142 01	35.07 of gross expenses.
Fresh meat.....	20	806 75	40 33	9.96 “ “
Clothing.....	19	1,373 75	72 35	16.97 “ “
Fuel.....	16	378 00	23 63	4.67 “ “
Rent.....	12	756 00	63 00	9.33 “ “
Sickness.....	19	362 25	19 06	4.48 “ “
Interest, insurance, taxes.....	11	199 50	18 31	2.47 “ “
Education.....	20	334 25	16 71	4.13 “ “
Society dues.....	5	45 50	9 10	0.51 “ “
Sundries.....	20	1,004 50	50 22	12.41 “ “
Aggregate family expenses.....	20	8,100 75	405 03	82.75 of gross income.
Daily expenses per family.....	20		1 32	60.00 were below the average.
Expenses per person.....	121		66 94	
Daily expenses per person.....	121		21 3/4	
Incomes above expenses.....	17	1,904 00	112 00	19.45 of gross income.
Expenses above incomes.....	3	215 25	71 75	2.19 more than gross income.
Net surplus.....	20	1,685 75	84 43	17.26 of gross incomes.

Below the average: 12 family incomes, 12 family expenses, 6 father's daily wages.

CARPENTERS.

ATCHISON.

Summary of 17 monthly reports for 6 months from May to October inclusive. Number reported each month, average family membership, days worked and wages per day were as follows: Two for May averaged 2.5 persons to each family, worked, 23 days at \$2.50 per day; 3 for June, 7 to family, 23.7 days at \$2.50; 2 for July, 6 to family, 21.5 days at \$2.50; 3 for August, 7 to family, 25 days at \$2.42; 4 for September, 4.7 to family, 24.5 days at \$2.42; 3 for October, 7.6 to family, 23.3 days at \$2.42. Parents, 32; sons, 42; daughters, 26; other persons, 10. Native-born adults, 24; foreign-born adults, 8. Average age of employed: men, 41.3; sons, 18.7. Average number of hours employed daily: men, 10. Paid weekly, 12; semi-monthly, 3; monthly, 2; had wages withheld, 2 — 16 days each; preferred weekly payment of wages, 3; belonged to labor organizations, 8; had life insurance, 13; amount, \$21,500; had weekly benefits, 6; average amount, \$4. Owned homes, 14; homes mortgaged, 5; aggregate amount, \$1,700; annual interest, 8.12 per cent. Highest daily wages, \$2.75; lowest, \$2. Highest monthly family income, \$168; lowest, \$51.75. Highest monthly family expense, 154.50; lowest, \$38.75. Average number rooms rented, 4; monthly rent per room, \$2.50.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in family.....	17	110	6 $\frac{5}{10}$	.....
Persons employed.....	17	23	.....	21.00 of all persons reported.
Children at school.....	11	21	.....	31.00 of 68, total number reported
Men's daily wages.....	17	\$41 50	\$2 44	23.00 were below the average.
Sons' daily wages.....	6	9 12	1 52	50.00 " " "
Days employed, men.....	17	2,418	142 $\frac{5}{10}$	90.00 of working days.
" " sons.....	6	924	154	97.54 " "
Men's earnings.....	17	\$5,914 50	\$347 91	80.91 of gross earnings.
Sons' earnings.....	6	1,395 60	232 60	19.09 " "
Incomes from other sources.....	2	774 00	387 00	9.57 of gross incomes.
Aggregate incomes and earnings.....	17	8,084 10	475 53	21.58 of gross expenses.
Daily income per family.....	17	.....	2 58	70.00 were below the average.
Income per person.....	110	.....	73 49	.....
Daily income per person.....	110	.....	39 $\frac{9}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	17	\$2,002 80	\$117 81	29.81 of gross expenses.
Fresh meat.....	17	568 80	33 46	8.47 " "
Clothing.....	17	1,316 10	77 42	19.59 " "
Fuel.....	16	468 00	29 25	6.97 " "
Rent.....	3	180 00	60 00	2.68 " "
Sickness.....	17	468 00	27 53	6.97 " "
Interest, insurance, taxes.....	13	150 90	11 61	2.25 " "
Education.....	17	291 00	17 12	4.33 " "
Society dues.....	10	69 00	6 90	1.63 " "
Sundries.....	17	1,203 00	70 76	17.90 " "
Aggregate family expenses.....	17	6,717 60	395 15	83.09 of gross income.
Daily expenses per family.....	17	.....	2 14	76.00 were below the average.
Expenses per person.....	110	.....	61 07	.....
Daily expenses per person.....	110	.....	33 $\frac{2}{10}$	.....
Incomes above expenses.....	15	1,450 20	96 68	17.93 of gross income.
Expenses above incomes.....	2	83 10	41 55	1.02 more than gross income.
Net surplus.....	17	1,367 20	80 42	16.91 of gross incomes.

Below the average: 12 family incomes, 13 family expenses, 4 father's daily wages.

CARPENTERS—CONTINUED.

KANSAS CITY.

Summary of 71 monthly reports for 9 months, from January to September, 1888, inclusive. The number reported each month, average family membership, days worked and wages per day were as follows: 9 for January, average 6 persons to family, worked 6.1 days at \$2.44 per day; 9 for February, average 7 to family, 13.1 days at \$2.44; 9 for March, average 7 to family, 17.6 days at \$2.44; 6 for April, average 7.8 to family, 23.8 days at \$2.50; 11 for May, average 5.8 to family, 24.1 days at \$2.48; 10 for June, average 5.8 to family, 24.5 days at \$2.47; 5 for July, average 23.6 days at \$2.60; 6 for August, average 5 to family, 25.3 days at \$2.55; 6 for September, average 5.5 to family, 24.8 days at \$2.54. Parents, 137; sons, 155; daughters, 100; other persons, 54; native-born adults, 113; foreign-born adults, 24. Average age of employed: men, 39. Average number of hours employed daily: men, 9.8. Paid weekly, 49; semi-monthly, 1; monthly, 21; had wages withheld, 17—15 days each; preferred weekly payment of wages, 21; belonged to labor organizations, 29; had life insurance, 38; amount, \$54,000; had weekly benefits, 22; average amount, \$4.64; Owned homes, 22; homes mortgaged, 16; aggregate amount, \$4,250; annual interest, 9.1 per cent. Highest daily wages, \$3; lowest, \$2. Highest monthly family income, \$195; lowest, \$22.50. Highest monthly family expense, \$174; lowest, \$34.25. Average number of rooms rented, 4; monthly rent per room, \$3.27.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	71	446	6 $\frac{3}{10}$	22.00 of all persons reported.
Persons employed.....	71	98		34.00 of 255, total number report'd
Children at school.....	42	87		23.00 were below the average.
Men's daily wages.....	71	\$174 75	\$2 46	
Women's daily wages.....	2	2 50	1 25	
Sons' daily wages.....	19	27 05	1 42	68.00 " " "
Daughters' daily wages.....	6	5 50	91	17.00 " " "
Days employed, men.....	71	12,546	176	75.51 of working days.
" " women.....	2	360	180	76.92 " " "
" " sons.....	20	4,392	219	93.84 " " "
" " daughters.....	6	1,142	190	81.33 " " "
Men's earnings.....	71	\$30,159 90	\$424 79	80.62 of gross earnings.
Women's earnings.....	2	450 00	225 00	1.20 " " "
Sons' earnings.....	19	5,746 50	302 45	15.36 " " "
Daughters' earnings.....	6	1,053 00	175 50	2.82 " " "
Incomes from other sources.....	24	7,983 00	332 62	17.24 of gross incomes.
Aggregate incomes and earnings.....	71	46,292 40	652 00	20.54 above gross expenses.
Daily income per family.....	71		2 37	70.00 were below the average.
Income per person.....	446		103 57	
Daily income per person.....	446		37 $\frac{1}{2}$	
FAMILY EXPENSES.				
Groceries.....	71	\$12,053 99	\$169 77	31.39 of gross expenses.
Fresh meat.....	71	3,328 20	46 31	8.66 " " "
Clothing.....	71	6,593 40	92 84	17.17 " " "
Fuel.....	55	1,887 75	34 32	4.92 " " "
Rent.....	49	5,778 00	117 92	15.04 " " "
Sickness.....	64	1,747 35	27 30	4.55 " " "
Interest, Insurance, taxes.....	42	1,225 35	29 17	3.19 " " "
Education.....	70	1,171 35	16 73	3.05 " " "
Society dues.....	34	382 50	11 25	1.00 " " "
Sundries.....	70	4,235 31	60 50	11.03 " " "
Aggregate family expenses.....	71	38,403 00	540 89	82.96 of gross income.
Daily expense per family.....	71		1 97	70.00 were below the average.
Expenses per person.....	446		86 11	
Daily expense per person.....	446		31 $\frac{1}{2}$	
Incomes above expenses.....	60	8,889 30	148 15	19.07 of gross income.
Expenses above incomes.....	11	999 90	90 90	2.03 more than gross income.
Net surplus.....	71	7,889 40	111 12	17.04 of gross incomes.

Below the average: 50 family incomes, 50 family expenses, 16 father's daily wages.

CARPENTERS—CONTINUED.

LEAVENWORTH.

Summary of 32 monthly reports for 8 months from January to October, 1888, inclusive, except April and May. Number reported each month, average family membership, days worked, and wages per day were as follows: Six for January, $4\frac{1}{8}$ to family, 4 worked an average of 16 days at \$2.44, 2 were idle; 4 for February, $5\frac{3}{4}$ to family, 3 worked an average of 18 days at \$2.17, 1 was idle; 4 for March, 6 to family, worked an average of 18 days at \$2.40; 3 for June, 6 to family, worked an average of 24 days at \$2.41; 3 for July, 6 to family, worked an average of $23\frac{1}{2}$ days at \$2.50; 4 for August, $6\frac{1}{8}$ to family, worked an average of 25 days at \$2.50; 4 for September, $5\frac{3}{4}$ to family, worked an average of 25 days at \$2.40; 4 for October, 8 to family, worked an average of 25 days at \$2.40. Parents, 62; sons, 64; daughters, 50; other persons, 11. Native-born adults, 46; foreign-born adults, 16. Average age of employed, men, 37; women, 30; sons, 18. Average number of hours employed daily, men, 10; women, 11; sons, 10. Paid weekly, 20; semi-monthly, 9; preferred weekly payment of wages, 20. Belonged to labor organizations, 10. Had life insurance, 13; average amount, \$1,700; had weekly benefits, 8; average amount, \$4. Owned homes, 10; homes mortgaged, 4; aggregate amount, \$1,300; annual interest, 8 per cent. Highest daily wages, \$2.75; lowest, \$2. Highest monthly family income, \$161; lowest, \$2.50. Highest monthly family expense, \$143.90; lowest, \$17.35. Average number of rooms rented, $3\frac{5}{11}$; monthly rent per room, \$2.68. Average price of fresh meat per pound, 10 cents. Coal per ton, \$3.25.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	32	187	$5\frac{5}{8}$	20 of all persons reported.
Persons employed.....	32	39	$1\frac{1}{20}$	37.00 of 125, total number reported
Children at school.....	20	47	$2\frac{1}{20}$	45.00 were below the average.
Men's daily wages.....	29	\$69.80	\$2.41	50.00 " " "
Women's daily wages.....	2	3.25	1.62	50.00 " " "
Sons' daily wages.....	8	8.03	1.00	50.00 " " "
Days employed, men.....	29	5,064	1.75	83.55 of working days.
" " women.....	2	112	.56	26.79 " " "
" " sons.....	8	920	\$1.15	55.00 " " "
Men's earnings.....	29	\$11,698.00	403.38	86.23 of gross earnings.
Women's earnings.....	2	180.00	\$90.00	1.32 " " "
Sons' earnings.....	8	1,689.20	211.15	12.45 " " "
Incomes from other sources.....	3	1,424.00	475.00	9.50 of gross incomes.
Aggregate incomes and earnings.....	32	14,991.20	468.48	8.25 were above gross expenses.
Daily income per family.....	32	.....	1.92	47.00 were below the average.
Income per person.....	187	.....	80.16	.....
Daily income per person.....	187	.....	33	.....
FAMILY EXPENSES.				
Groceries.....	32	\$4,847.60	\$151.49	35.05 of gross expenses.
Fresh meat.....	32	1,428.00	44.62	10.32 " " "
Clothing.....	31	2,356.00	76.00	17.03 " " "
Fuel.....	27	839.20	31.08	6.07 " " "
Rent.....	14	1,000.00	71.43	7.22 " " "
Sickness.....	30	750.40	25.01	5.42 " " "
Interest, insurance, taxes.....	20	397.68	19.88	2.88 " " "
Education.....	30	608.00	20.40	4.81 " " "
Society dues.....	8	92.00	11.50	0.66 " " "
Sundries.....	28	1,530.00	54.64	11.04 " " "
Aggregate family expenses.....	32	13,848.88	432.77	92.38 of gross income.
Daily expenses per family.....	32	.....	1.77	66.00 were below the average.
Expenses per person.....	187	.....	74.05	.....
Daily expenses per person.....	187	.....	$30\frac{1}{2}$	.....
Income above expenses.....	22	2,956.00	134.36	19.71 of gross income.
Expenses above incomes.....	10	1,813.68	181.34	12.09 more than gross income.
Net surplus.....	32	1,142.72	35.75	7.62 of gross incomes.

Below the average: 15 family incomes, 21 family expenses, 13 father's daily wages.

CARPENTERS — CONCLUDED.

TOPEKA.

Summary of 90 monthly reports for 10 months, from January to October, 1888, inclusive. Number reported each month average family membership, days worked, and wages per day, were as follows: Twelve for January, averaging $3\frac{6}{13}$ to family, 4 idle, 8 worked an average of $14\frac{1}{2}$ days, averaging \$2.37 per day; 13 for February, averaging $3\frac{1}{5}$ in family, 2 idle, 11 worked an average of 12 days each at \$2.48; 10 for March, averaging $4\frac{5}{12}$ in family; all worked an average of $19\frac{1}{3}$ days at \$2.32; 8 for April, averaging $4\frac{2}{3}$ in family; all worked $20\frac{3}{8}$ days each at \$2.56; 7 for May, 4 to family, worked $22\frac{1}{2}$ each, averaging \$2.39; 9 for June, $3\frac{1}{2}$ to family, 2 idle, 7 worked an average of $22\frac{1}{3}$ days at \$2.39; 3 for July, 5 to family, worked an average of $19\frac{1}{2}$ days at \$2.42; 10 for August, $3\frac{1}{2}$ to family, 1 idle, 9 worked an average of 20 days each, earning \$2.43; 9 for September, $4\frac{2}{3}$ to family, all worked an average of $23\frac{2}{9}$ days each, at \$2.47; 9 for October, $3\frac{1}{2}$ to family, averaging $23\frac{2}{9}$ each, at \$2.53. Parents, 173; sons, 67; daughters, 79; other persons, 35; native-born adults, 149; foreign-born adults, 11. Average age of employed: men, 38; women, 30; sons, 18. Number of hours employed daily: men, 41, 9 hours; 43, 10 hours; women, 10; sons, 10. Paid weekly, 40; semi-monthly, 14; monthly, 21; had wages withheld, 14—15 days each; preferred weekly payment of wages, 89; belonged to labor organizations, 56; locked out, 4; had life insurance, 45; total amount, \$80,150; had weekly benefits, 6; amount, \$5, average; owned homes, 16; homes mortgaged, 7; aggregate amount, \$3,137; annual interest, 8 per cent.; had personal property mortgaged 5; monthly interest, 10 per cent. Highest daily wages, \$3.00; lowest, \$1.82. Highest monthly family income, \$103.50; lowest, \$6. Highest monthly family expense, \$118.25; lowest, \$14.45. Average number rooms rented, $3\frac{1}{2}$; monthly rent per room, \$3.29. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in family.....	90	354	$3\frac{1}{10}$	26.27 of all persons reported.
Persons employed.....	90	89	13	8.90 of 146, total number reported
Children at school.....	10	13		41.44 were below the average.
Men's daily wages.....	81	\$194 79	\$2 40	75.00 " " "
Women's daily wages.....	4	4 43	1 11	50.00 " " "
Sons' daily wages.....	4	6 00	1 50	74.33 of working days.
Days employed, men.....	81	15,705	194	55.55 " " "
" " women.....	4	580	145	80.45 " " "
" " sons.....	4	840	210	94.74 of gross earnings.
Men's earnings.....	81	\$38,130 50	\$470 74	2.73 " " "
Women's earnings.....	4	1,099 50	274 87	2.53 " " "
Sons' earnings.....	3	1,015 00	338 33	13.12 of gross incomes.
Incomes from other sources.....	16	6,080 00	380 00	5.71 above gross expenses.
Aggregate incomes and earnings.....	90	46,325 00	514 72	39.00 were below the average.
Daily income per family.....	90		1 68	
Income per person.....	354		130 86	
Daily income per person.....	354		43	
FAMILY EXPENSES.				
Groceries.....	85	\$14,780 10	\$173 97	33.73 of gross expenses.
Fresh meat.....	80	3,440 00	43 00	7.85 " " "
Clothing.....	62	4,140 30	66 78	9.45 " " "
Fuel.....	82	3,235 70	39 46	7.38 " " "
Rent.....	74	8,537 50	115 37	9.48 " " "
Sickness.....	36	784 50	21 79	1.79 " " "
Interest, insurance, taxes.....	10	792 20	79 22	1.81 " " "
Education.....	57	771 60	13 54	1.76 " " "
Society dues.....	59	817 40	13 85	1.86 " " "
Boarding.....	9	1,317 50	146 39	3.01 " " "
Sundries.....	66	5,206 00	78 87	11.88 " " "
Aggregate family expenses.....	90	43,822 80	486 92	94.60 of gross income.
Daily expenses per family.....	90		1 59	52.22 were below the average.
Expenses per person.....	354		123 79	
Daily expenses per person.....	354		40	
Incomes above expenses.....	53	7,746 00	146 15	16.72 of gross income.
Expenses above incomes.....	37	5,242 80	141 70	11.32 more than gross income.
Net surplus.....	90	2,503 20	27 81	5.40 of gross incomes.

Below the average: 35 family incomes, 47 family expenses, 36 father's daily wages.

CIGAR-MAKERS.

LEAVENWORTH.

Summary of 7 monthly reports for 3 months from June to October, inclusive—omitting July and September. Number reported each month, average family membership, days worked, and wages per day, as follows: 2 for June, $5\frac{1}{2}$ to family, worked 26 days each at an average daily wage of \$2.05; 3 for August, 6 to family, worked 26 days each at an average of \$2.36 per day; 2 for October $4\frac{1}{2}$ to family, worked 27 days each at an average of \$2.25 per day. Parents, 14; sons, 10; daughters, 13; other persons, 1. Native-born adults, 4; foreign-born adults, 10. Average age of employed: men, 34. Average number of hours employed daily: men, 9. Paid weekly, 5; semi-monthly 2; preferred weekly payment of wages, 7. Belonged to labor organizations, 3; had life insurance 5; total amount, \$8,500; had weekly benefits, 4; total amount, \$17. Owned homes, 1. Highest daily wages, \$2.50; lowest, \$2. Highest monthly family income, \$67.50; lowest, \$52. Highest monthly family expense, \$60; lowest, \$39. Average number rooms rented, $2\frac{5}{8}$; monthly rent per room, \$2.66. Average price of fresh meat per pound, 10 cents. Coal per ton, \$3.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	7	38	5 $\frac{3}{4}$	.....
Persons employed.....	7	7	1	18.00 of all persons reported.
Children at school.....	3	4	1 $\frac{1}{2}$	17.00 of 24, total number reported
Men's daily wages.....	7	\$15 00	\$2 14	71.43 were below the average.
Days employed, men.....	7	552	78 $\frac{8}{9}$	98.75 of working days.
Men's earnings.....	7	\$1,183 50	\$169 07	100.00 of gross earnings.
Aggregate incomes and earnings.....	7	1,183 50	169 07	17.45 above gross expenses.
Daily income per family.....	7	.....	1 83	71.43 were below the average.
Income per person.....	38	.....	31 11	.....
Daily income per person.....	38	.....	33 $\frac{8}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	7	\$306 75	\$43 81	31.46 of gross expenses.
Fresh meat.....	7	82 50	11 78	8.19 " "
Clothing.....	7	170 25	24 32	16.89 " "
Fuel.....	6	31 50	5 25	3.11 " "
Rent.....	6	136 50	22 75	13.55 " "
Sickness.....	7	92 25	13 17	9.16 " "
Interest, insurance, taxes.....	5	16 20	3 24	1.60 " "
Education.....	7	36 75	5 25	3.64 " "
Society dues.....	2	6 00	3 00	0.59 " "
Sundries.....	7	129 00	18 42	11.81 " "
Aggregate family expenses.....	7	1,007 70	143 95	85.14 of gross income.
Daily expenses per family.....	7	.....	1 56	57.14 were below the average.
Expenses person.....	38	.....	26 51	.....
Daily expenses per person.....	38	.....	28 $\frac{5}{10}$	.....
Incomes above expenses.....	6	193 80	32 30	16.38 of gross income.
Expenses above incomes.....	1	18 00	18 00	1.52 more than gross income.
Net surplus.....	7	165 80	15 11	14.86 of gross incomes.

Below the average: 5 family incomes, 4 family expenses, 5 father's daily wages.

LOCOMOTIVE ENGINEERS.

ATCHISON.

Summary of eight monthly reports for four months, July to October, inclusive. Number for each month, average family membership, days worked and wages per day were as follows: 2 for July, 3 persons to family, worked an average of $30\frac{1}{2}$ days at \$4; 3 for August, $5\frac{2}{3}$ to family, worked an average of $29\frac{1}{2}$ days at \$3.58; 1 for September, 6 in family, worked 30 days at \$4; 2 for October, $6\frac{1}{2}$ to family, worked 31 days each at an average daily wage of \$3.25. Parents, 16; sons, 16; daughters, 9; other persons, 1. Native-born adults, 12; foreign-born adults, 4. Average age of employed: men, 38. Average number of hours employed daily: men, 8.6. Paid monthly, 8; had wages withheld, 8—16 days each; preferred weekly payment of wages, 6. Belonged to labor organizations, 7. Had life insurance, 9; amount, \$19,500; had weekly benefits, 6; amount, \$17. Owned homes, 2. Highest daily wages, \$4; lowest, yard engineer, \$2.50. Highest monthly family income, \$124; lowest, yard engineer, \$77.50. Highest monthly family expense, \$111.50; lowest, yard engineer, \$64.75. Average number of rooms rented, 3.6; monthly rent per room, \$2.81.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	8	42	$5\frac{2}{3}$	.....
Persons employed.....	8	8	.....	19.00 of all persons reported.
Children at school.....	3	7	.....	28.00 of 25, total number reported
Men's daily wages.....	8	\$29 25	\$3 63	25.00 were below the average.
Days employed, men.....	8	964	120	98.00 of all days.
Men's earnings, four months.....	8	\$3,520 00	\$440 00	100.00 of gross earnings.
Aggregate incomes and earnings.....	8	3,520 00	440 00	32.63 above gross expenses.
Daily income per family.....	8	.....	3 57	37.00 were below the average.
Income per person, four months.....	42	.....	83 81	.....
Daily income per person.....	42	.....	$68\frac{2}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	7	\$546 00	\$78 00	20.57 of gross expenses.
Fresh meat.....	7	146 00	20 86	5.50 " "
Clothing.....	8	414 00	51 75	15.60 " "
Fuel.....	4	85 00	21 25	3.21 " "
Rent.....	5	232 00	46 40	8.74 " "
Sickness.....	8	94 00	11 75	3.54 " "
Interest, insurance, taxes.....	8	59 00	7 38	2.22 " "
Education.....	8	128 00	4 00	4.82 " "
Society dues.....	7	138 00	19 71	5.20 " "
Boarding.....	6	442 00	73 67	16.66 " "
Sundries.....	8	370 00	46 25	13.94 " "
Aggregate family expenses.....	8	2,654 09	331 75	75.40 of gross income.
Daily expenses per family.....	8	.....	2 69	62.00 were below the average.
Expenses per person.....	42	.....	63 18	.....
Daily expenses per person.....	42	.....	$51\frac{4}{10}$	.....
Incomes above expenses.....	8	866 00	108 25	24.60 of gross income.
Net surplus.....	8	866 00	108 25	24.60 of gross incomes.

Below the average: 3 family incomes, 5 family expenses, 2 father's daily wages.

LOCOMOTIVE ENGINEERS—CONTINUED.

KANSAS CITY.

Summary of 31 monthly reports for 9 months, from January to September, 1888, inclusive. Number reported each month, average family membership, days worked and wages per day were as follows: Three for January, average 6.3 persons to family, worked 27 days at \$4.18 per day; 3 for February, average 6.3 to family, 27 days at \$4.18; 3 for March, average 6.3 to family, 27 days at \$4.18; 3 for April, average 6.3 to family, 27.3 days at \$4.18; 3 for May, average 6.3 to family, 26.3 days at \$4.18; 4 for June, average 5.2 to family, 28.2 days at \$4.23; 4 for July, average 5.5 to family, 27.2 days at \$3.77; 5 for August, average 5.6 to family, 29.8 days at \$3.76; 3 for September, average 6 to family, 28.7 days at \$4.06 per day. Parents, 62; sons, 75; daughters, 44; other persons, 3. Native-born adults, 61; foreign-born adults, 1. Average age of employed: men, 36. Average number of hours employed daily: men, 79. Paid monthly, 31; had wages withheld, 31—16 days each; preferred weekly payment of wages, 15. Belonged to labor organizations, 29. Had life insurance, 31; amount, \$85,500; had weekly benefits, 31; average amount, \$13.50. Owned homes, 21; homes mortgaged, 5; aggregate amount, \$1,250; annual interest, 8 per cent. Highest daily wages, \$5.60; lowest, \$2.75. Highest monthly family income, \$183.60; lowest, \$80. Highest monthly family expense, \$119; lowest, \$61. Average number rooms rented, 3.9; monthly rent per room, \$3.75.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	31	184	5 $\frac{1}{10}$	.....
Persons employed.....	31	31	.....	17.00 of all persons reported.
Children at school.....	18	44	.....	37.00 of 119, total number reported
Men's daily wages.....	31	\$125 66	\$4 05	58.00 were below the average.
Days employed, men.....	31	7,749	250	85.00 of all days.
Men's earnings.....	31	\$31,333 41	\$1,010 75	100.00 of gross earnings.
Incomes from other sources.....	10	1,656 00	165 60	5.00 of gross incomes.
Aggregate incomes and earnings.....	31	32,989 41	1,064 17	42.41 above gross expenses.
Daily income per family.....	31	.....	3 88	61.00 were below the average.
Income per person.....	184	.....	179 25	.....
Daily income per person.....	184	.....	65 $\frac{3}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	31	\$5,222 25	\$168 46	22.53 of gross expenses.
Fresh meat.....	31	1,481 40	47 79	6.36 " "
Clothing.....	31	4,194 00	135 27	18.07 " "
Fuel.....	19	1,062 00	55 89	4.55 " "
Rent.....	10	1,318 50	131 85	5.66 " "
Sickness.....	31	1,224 00	39 48	5.22 " "
Interest, insurance, taxes.....	31	1,032 75	33 31	4.42 " "
Education.....	31	1,154 25	37 23	4.95 " "
Society dues.....	28	1,093 50	39 05	4.69 " "
Boarding.....	28	2,479 50	88 55	10.67 " "
Sundries.....	31	2,992 50	96 53	12.88 " "
Aggregate family expenses.....	31	23,164 65	747 25	70.22 of gross income.
Daily expenses per family.....	31	.....	2 73	61.00 were below the average.
Expenses per person.....	184	.....	125 89	.....
Daily expenses per person.....	184	.....	45 $\frac{3}{10}$	.....
Incomes above expenses.....	30	9,899 19	329 97	30.00 of gross income.
Expenses above incomes.....	1	74 48	74 43	0.22 more than gross income.
Net surplus.....	31	9,824 76	316 92	29.78 of gross incomes.

Below the average: 19 family incomes, 19 family expenses, 18 father's daily wages.

LOCOMOTIVE ENGINEERS—CONCLUDED.

LEAVENWORTH.

Summary of 8 monthly reports for 4 months, from July to October, inclusive. Number reported each month, average family membership, days worked, and wages per day, as follows: 1 for July, 7 in family, worked 31 days, at \$3.65 per day; 2 for August, 4½ to family, worked 31 days each, at an average of \$3.75 per day; 3 for September, 6 to family, worked 30 days each, at an average of \$3.67 per day; and 2 for October, 6½ to family, worked 31 days each, at an average of \$3.25 per day. Parents, 16; sons, 16; daughters, 14; other persons, 1; native-born adults, 14; foreign-born adults, 2. Average age of employed, men, 39. Average number of hours employed daily, men, 8½. Paid monthly, 8; had wages withheld, 8—16 days each; preferred weekly payment of wages, 6; belonged to labor organizations, 7. Had life insurance, 8; total amount, \$16,500. Had weekly benefits, accident, 6; total amount, \$100. Owned homes, 3. Highest daily wages, \$4; lowest, \$2.50. Highest monthly family income, \$124; lowest, \$77.50. Highest monthly family expenses, \$102.50; lowest, \$58.75. Average number rooms rented, 4½; monthly rent per room, \$3.05. Average price of fresh meat per pound, 10 cents; coal per ton, \$3.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	8	47	5½	.....
Persons employed.....	8	8	1	17.00 of all persons reported.
Children at school.....	5	11	2½	35.00 of 31, total number reported
Men's daily wages.....	8	\$28 65	\$3 58	38.00 were below the average.
Days employed, men.....	8	980	122½	98.58 of all days.
Men's earnings.....	8	\$3,508 69	438 57	100.00 of gross earnings.
Incomes from other sources.....	1	40 00	40 00	1.12 of gross incomes.
Aggregate incomes and earnings.....	8	3,548 60	443 58	30.55 above gross expenses.
Daily income per family.....	8	.....	3 60	38.00 were below the average.
Income per person.....	47	.....	75 50	.....
Daily income per person.....	47	.....	61½	.....
FAMILY EXPENSES.				
Groceries.....	8	\$628 00	\$78 50	23.10 of gross expenses.
Fresh meat.....	8	206 00	25 75	7.58 " "
Clothing.....	8	474 00	59 25	17.44 " "
Fuel.....	8	147 96	18 37	5.41 " "
Rent.....	5	256 00	51 20	9.42 " "
Sickness.....	8	118 00	14 75	4.34 " "
Interest, insurance, taxes.....	8	62 00	7 75	2.28 " "
Education.....	8	139 00	17 37	5.11 " "
Society dues.....	8	142 00	17 75	5.23 " "
Boarding.....	6	218 00	36 33	8.02 " "
Sundries.....	8	328 00	41 00	12.07 " "
Aggregate family expenses.....	8	2,718 00	339 75	76.60 of gross income.
Daily expenses per family.....	8	.....	2 76	50.00 were below the average.
Expenses per person.....	47	.....	57 82	.....
Daily expenses per person.....	47	.....	47½	.....
Incomes above expenses.....	7	830 60	118 65	23.40 of gross income.
Net surplus.....	8	830 60	103 82	23.40 of gross incomes.

Below the average: 3 family incomes, 4 family expenses, 3 father's daily wages.

STATIONARY ENGINEERS.

MONTHLY RETURNS FOR MARCH, 1888.

The following is a summary for one month with all localities grouped together: 3 from Atchison, averaged 5 persons to a family, worked $27\frac{2}{3}$ days each at an average of \$2.66 per day; 4 from Lawrence, average 4 persons, $27\frac{1}{2}$ days, \$2; 9 from Topeka, average 4.4 persons, $27\frac{2}{3}$ days, \$2.88; 1 from Wichita, 5 persons, 26 days, \$2.88 per day. Parents, 34; sons, 22; daughters, 15; other persons, 5. Native-born adults, 30; foreign-born adults, 4. Average age of employed: men, 35.6; sons, 15.5. Average number of hours employed daily: men, 10.8. Paid weekly, 5; semi-monthly, 3; monthly, 8; preferred weekly payment of wages, 4. Belonged to labor organizations, 6. Had life insurance, 9; amount, \$30,700; had weekly benefits, 2; amount, \$25. Owned homes, 5; homes mortgaged, 3; aggregate amount, \$1,750; annual interest, $7\frac{1}{2}$ per cent. Highest daily wages, \$3.33; lowest \$2. Highest family income, \$122; lowest, \$43. Highest family expense, \$101.60; lowest, \$29.11. Average number of rooms rented, $3\frac{9}{10}$; monthly rent per room, \$2.81.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	17	75	$4\frac{1}{5}$	25.33 of all persons reported.
Persons employed.....	17	19	.....	43.24 of 37, total number reported
Children at school.....	8	16	.....	53.00 were below the average.
Men's daily wages.....	17	\$44 16	\$2 60	50.00 " " "
Sons' daily wages.....	2	1 73	86	87.85 of all days in the month.
Days employed, men.....	17	463	27	100.00 of working days.
" " sons.....	2	52	26	96.39 of gross earnings.
Men's monthly earnings.....	17	\$1,199 90	\$70 58	3.61 " " "
Sons' monthly earnings.....	2	45 00	22 50	4.52 of gross income.
Incomes from other sources.....	2	60 00	30 00	35.73 above gross expenses.
Aggregate incomes and earnings.....	17	1,304 90	76 76	58.82 were below the average.
Daily income per family.....	17	.....	2 43	.....
Monthly income per person.....	75	.....	17 40	.....
Daily income per person.....	75	.....	$56\frac{1}{10}$	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	17	\$348 66	\$20 51	36.26 of gross expenses.
Fresh meat.....	15	72 48	4 83	7.53 " " "
Clothing.....	13	111 15	8 53	11.56 " " "
Fuel.....	14	25 55	1 82	2.65 " " "
Rent.....	9	98 50	10 95	10.24 " " "
Sickness.....	10	29 45	2 94	3.06 " " "
Interest, insurance, taxes.....	13	100 84	7 76	10.48 " " "
Education.....	12	15 50	1 29	1.61 " " "
Society dues.....	13	19 10	1 47	1.98 " " "
Boarding.....	2	35 00	17 50	3.64 " " "
Sundries.....	8	105 66	13 21	10.99 " " "
Aggregate family expenses.....	17	961 39	56 55	73.67 of gross income.
Daily expenses per family.....	17	.....	1 82	53.00 were below the average.
Monthly expenses per person.....	75	.....	12 82	.....
Daily expenses per person.....	75	.....	$41\frac{1}{10}$	.....
Incomes above expenses.....	15	371 91	23 24	28.50 of gross income.
Expenses above incomes.....	2	28 40	14 20	2.17 more than gross income.
Net surplus.....	17	343 57	20 21	26.33 of gross incomes.

Below the average: 10 family incomes, 9 family expenses, 9 father's daily wages.

STATIONARY ENGINEERS—CONTINUED.

LEAVENWORTH.

Summary of 8 monthly reports for 6 months from March to October inclusive, omitting April and May. Number reported each month, average family membership, days worked and wages per day as follows: One for March, 4 in family, worked 28 days at \$2; 1 for June, 5 in family, worked 28 days at \$2; 2 for July, averaging $2\frac{1}{2}$ to family, worked an average of 29 days at \$2; 1 for August, 1 in family, worked 30 days at \$2; 1 for September, 4 in family, worked 28 days at \$2; 2 for October, averaging 3 to family, worked an average of $28\frac{1}{2}$ days at \$2. Parents, 10; sons, 8; daughters, 7. Native-born adults, 12. Average age of employed, men, 34. Average number of hours employed daily, men, 11. Paid weekly, 8; preferred weekly payment of wages, 8. Belonged to labor organizations, 2. Had life insurance, 6; total amount, \$9,000; had weekly benefits, 4; total amount, \$36. Owned homes, 3. Highest daily wages, \$2; lowest, \$2. Highest monthly family income, \$65; lowest, \$56. Highest monthly family expense, \$53.50; lowest, \$38.75. Average number rooms rented, 2; monthly rent per room, \$4.12. Average price of fresh meat per pound, 10 cents. Coal per ton, \$3.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	8	25	$3\frac{1}{5}$	.....
Persons employed.....	8	8	1	32.00 of all persons reported.
Children at school.....	3	3	1	20.00 of 15, total number reported
Men's daily wages.....	8	\$16 00	\$2 00	.....
Days employed, men.....	8	1,374	1,71 $\frac{3}{4}$	8.70 more than working days.
Men's earnings.....	8	\$2,748 00	\$343 50	100.00 of gross earnings.
Incomes from other sources.....	1	30 00	30 00	1.08 of gross incomes.
Aggregate incomes and earnings.....	8	2,778 00	347 25	32.09 above gross expenses.
Daily income per family.....	8	.....	1 88	62.50 were below the average.
Income per person.....	25	.....	111 12	.....
Daily income per person.....	25	.....	60	.....
FAMILY EXPENSES.				
Groceries.....	5	\$403 80	\$80 76	19.20 of gross expenses.
Fresh meat.....	5	133 20	26 64	6.33 " "
Clothing.....	8	423 00	52 87	20.11 " "
Fuel.....	2	40 50	20 25	1.93 " "
Rent.....	4	198 00	49 50	9.42 " "
Sickness.....	8	165 00	20 62	7.85 " "
Interest, insurance, taxes.....	6	40 50	6 75	1.92 " "
Education.....	8	183 00	22 87	8.70 " "
Society dues.....	4	53 00	8 25	1.54 " "
Boarding.....	3	282 00	94 00	13.41 " "
Sundries.....	8	201 00	25 12	9.56 " "
Aggregate family expenses.....	8	2,103 00	262 87	75.70 of gross income.
Daily expenses per family.....	8	.....	1 42	62.50 were below the average.
Expenses per person.....	25	.....	84 12	.....
Daily expenses per person.....	25	.....	45 $\frac{7}{16}$	.....
Incomes above expenses.....	8	675 80	84 37	24.29 of gross income.
Net surplus.....	8	675 00	84 37	32.35 of gross incomes.

Below the average: 5 family incomes, 5 family expenses.

STATIONARY ENGINEERS—CONCLUDED.

TOPEKA.

Summary of 45 monthly reports for 10 months from January to October, 1888, inclusive. Number reported each month, average family membership, days worked, and wages per day were as follows: One for January, 3 in family, worked 27½ days, at \$2.40; 1 for February, 4 in family, worked 30 days at \$1.73; 1 for March, 4 in family, worked 31 days, at \$1.73; 1 for April, worked 30 days, at \$1.73; 9 for May, 4½ to family, worked an average of 27 days, at \$2.57; 12 for June, 4½ to family, worked an average of 27½ days, at \$2.70; 7 for July, 6½ to family, worked an average of 28 days, at \$2.85; 4 for August, 4½ to family, worked an average of 29 days, at \$2.72; 4 for September, 4½ to family, worked an average of 29 days at \$2.65; and 5 for October, 4 to family, worked an average of 28 days, at \$2.43. Parents, 90; sons, 37; daughters, 55; other persons, 16. Native-born adults, 82; foreign-born adults, 8. Average age of employed, men, 37½; women, 25; sons, 18. Average number of hours employed daily, men, 11½; women, 10; sons, 10. Paid weekly, 12; semi-monthly, 5; monthly, 26; had wages withheld, 14—9 days each; preferred weekly payment of wages, 27; belonged to labor organizations, 20. Had life insurance, 21; average amount, \$4.143. Had weekly accident benefits, 2; amount, \$15. Owned homes, 23; homes mortgaged, 14; aggregate amount, \$6,325; annual interest, 8½ per cent. Had personal property mortgaged, 3; monthly interest, 2 per cent. Highest daily wages, \$3.70; lowest, \$1.67. Highest monthly family income, \$140; lowest, \$43.74. Highest monthly family expense, \$110.60; lowest, \$23. Average number of rooms rented, 3½; monthly rent per room, \$4. Average price of fresh meat per pound, 10 cents. Coal per ton, \$4.50.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	45	198	4½	.....
Persons employed.....	45	53	.....	26.76 of all persons reported.
Children at school.....	18	43	.....	46.74 of 92, total number reported
Men's daily wages.....	45	\$115 45	\$2 56½	42.22 were below the average.
Women's daily wages.....	1	1 50	1 50	.....
Sons' daily wages.....	7	7 46	1 06½	85.71 " " "
Days employed, men.....	45	12,545	279	6.90 more than working days.
" " women.....	1	30	30	11.49 of working days.
" " sons.....	7	1,810	259	99.23 " " "
Men's earnings.....	45	\$31,743 20	\$705 40	93.70 of gross earnings.
Women's earnings.....	1	45 00	45 00	0.13 " " "
Sons' earnings.....	7	2,090 00	298 57	6.17 " " "
Incomes from other sources.....	8	2,125 00	265 62	5.90 of gross incomes.
Aggregate incomes and earnings....	45	36,003 20	800 07	49.49 were above gross expenses.
Daily income per family.....	45	.....	2 62	53.33 were below the average.
Income per person.....	198	.....	181 83	.....
Daily income per person.....	198	.....	59½	.....
FAMILY EXPENSES.				
Groceries.....	45	\$8,882 60	\$197 39	36.87 of gross expenses.
Fresh meat.....	40	2,105 50	52 14	8.44 " " "
Clothing.....	33	2,728 50	82 68	11.32 " " "
Fuel.....	38	1,376 00	36 40	5.71 " " "
Rent.....	21	2,450 00	116 66	10.16 " " "
Sickness.....	18	482 00	26 77	2.00 " " "
Interest, insurance, taxes.....	25	1,428 40	57 13	5.92 " " "
Education.....	37	802 10	21 68	3.33 " " "
Society dues.....	39	410 70	10 53	1.75 " " "
Boarding.....	11	1,642 50	149 32	6.82 " " "
Sundries.....	29	1,849 80	63 79	7.68 " " "
Aggregate family expenses.....	45	24,083 10	535 18	66.89 of gross income.
Daily expenses per family.....	45	.....	1 75	53.33 were below the average.
Expenses per person.....	198	.....	121 66	.....
Daily expenses per person.....	198	.....	40	.....
Income above expenses.....	42	12,017 50	286 13	33.37 of gross income.
Expenses above incomes.....	2	97 50	48 75	0.27 more than gross income.
Net surplus.....	45	11,920 00	264 88	33.10 of gross incomes.

Below the average: 24 family incomes, 24 family expenses, 19 father's daily wages.

LOCOMOTIVE FIREMEN.

KANSAS CITY.

Summary of 28 monthly reports for 9 months, from January to September, inclusive, 1888. Number reported each month, average family membership, days worked and wages per day, were as follows: 1 for January, 4 persons in family, worked 31 days at \$2.68 per day; 3 for February, average 4.3 to family, 27.7 days at \$2.37; 3 for March, average 4.3 to family, 27.6 days at \$2.37; 4 for May, average 4 to family, 27.5 days at \$2.22; 5 for June, average 4.4 to family, 28 days at \$2.39; 4 for July, average 3.7 to family, 26 days at \$2.30; 2 for August, average 3.5 to family; 29.5 days at \$2.12; 3 for September, average 4 to family, 29 days at \$2.19 per day. Parents, 56; sons, 31; daughters, 27; other persons, 1. Native-born adults, 56. Average age of employed, men, 30.5. Average number of hours employed daily, men, 8.6. Paid monthly 28; had wages withheld, 28—16 days each; preferred weekly payment of wages, 28. Belonged to labor organizations, 28. Had life insurance 27; total amount, \$39,000; had weekly benefits, 19; average amount, \$10. Owned homes, 11; homes mortgaged, 11; aggregate amount, \$3,250; annual interest, 9 per cent. Highest daily wages, \$2.68; lowest, \$1.80. Highest monthly family income, \$83.08; lowest, \$39. Highest monthly family expense, \$74; lowest, \$39. Average number rooms rented, 2.5; monthly rent per room, \$3.34.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	28	115	4 $\frac{1}{10}$	.....
Persons employed.....	28	28	.....	24.00 of all persons reported.
Children at school.....	5	5	.....	8.00 of 58, total number reported
Men's daily wages.....	28	\$64 86	\$2 32	53.00 were below the average.
Days employed, men.....	28	6,975	249	90.91 of working days.
Men's earnings.....	28	\$16,281 72	\$581 49	100.00 of gross earnings.
Aggregate incomes and earnings.....	28	16,281 72	581 49	19.53 above gross expenses.
Daily income per family.....	28	.....	2 12	64.00 were below the average.
Income per person.....	115	.....	141 58	.....
Daily income per person.....	115	.....	51 $\frac{7}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	26	\$2,803 50	\$107 83	20.58 of gross expenses.
Fresh meat.....	26	818 10	31 47	6.00 " "
Clothing.....	28	2,423 25	86 54	17.79 " "
Fuel.....	21	472 50	22 50	3.47 " "
Rent.....	15	1,111 50	74 10	8.16 " "
Sickness.....	26	513 00	19 73	3.77 " "
Interest, insurance, taxes.....	25	675 00	27 00	4.96 " "
Education.....	28	562 50	20 09	4.13 " "
Society dues.....	24	540 00	22 50	3.96 " "
Boarding.....	27	2,241 00	83 00	16.46 " "
Sundries.....	28	1,460 25	52 15	10.72 " "
Aggregate family expenses.....	28	13,620 60	486 45	83.66 of gross income.
Daily expenses per family.....	28	.....	1 78	39.00 were below the average.
Expenses per person.....	115	.....	118 44	.....
Daily expenses per person.....	115	.....	43 $\frac{1}{5}$	.....
Incomes above expenses.....	24	2,789 10	116 21	17.13 of gross income.
Expenses above incomes.....	4	127 98	32 00	0.79 more than gross income.
Net surplus.....	28	2,661 12	95 04	16.34 of gross incomes.

Below the average: 18 family incomes, 11 family expenses, 15 father's daily wages.

LABORERS.

ATCHISON.

Summary table of 77 monthly reports for 12 months, from October 1, 1887, to October, 31, 1888, exclusive of February. Number received each month, average family membership, number of days worked, and wages per day, were as follows: Twenty reports for October, 1887, averaged 4.7 persons to each family, worked 24.4 days at \$1.39 per day; 10 for November, 3.9 to family, 22.8 days at \$1.19; 10 for December, 4.2 to family, 18.9 days at \$1.11; 7 for January, 1888, 4.7 to family, (1 idle) 12 days at \$1.14; 5 for March, 3.6 to family, (1 idle) 13.7 days at \$1.44; 3 for April, 3.3 to family, 19.3 days at \$1.45; 3 for May, 5.3 to family, 24 days at \$1.58; 3 for June, 5.3 to family, 26 days at \$1.43; 3 for July, 5 to family, 23.7 days at \$1.43; 5 for August, 6.4 to family, 26.4 days at \$1.48; 4 for September, 6.2 in family, 24.5 days at \$1.52; 4 for October, 5.5 to family, 26.2 days at \$1.42 per day. Parents, 147; sons, 111; daughters, 96; other persons, 9. Average age of employed: men, 38.8; sons, 17.6; daughters, 18. Highest daily wages, \$1.75; lowest, \$0.75. Highest monthly family income, \$109; lowest, \$9.36. Highest monthly family expense, \$130; lowest, \$18.35. Average number rooms rented, 3; monthly rent per room, \$2.15.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in family.....	77	363	4 ⁷ / ₁₀	
Persons employed.....	77	102		28.00 of all persons reported.
Men's daily wages.....	75	\$101 39	\$1 35	34.00 were below the average.
Women's daily wages.....	4	2 25	56	75.00 " " "
Sons' daily wages.....	16	21 50	1 34	44.00 " " "
Daughters' daily wages.....	7	2 58	37	57.00 " " "
Days employed, men.....	75	20,112	268	86.50 of working days.
" " women.....	4	1,032	258	83.22 " " "
" " sons.....	16	4,512	282	90.96 " " "
" " daughters.....	7	2,280	326	89.02 of all days.....
Men's yearly earnings.....	75	\$27,273 84	\$363 65	78.71 of gross earnings.
Women's yearly earnings.....	4	603 00	150 75	1.74 " " "
Sons' yearly earnings.....	16	5,999 40	374 96	17.31 " " "
Daughters' yearly earnings.....	7	777 60	111 09	2.24 " " "
Incomes from other sources.....	4	978 00	244 50	2.74 of gross incomes.
Aggregate incomes and earnings.....	77	35,631 84	462 75	96.06 of gross expenses.
Daily income per family.....	77	.....	1 27	57.00 were below the average.
Yearly income per person.....	363	.....	98 16	.....
Daily income per person.....	363	.....	26 ⁹ / ₁₀	.....
FAMILY EXPENSES.				
Groceries.....	77	\$14,816 40	\$192 42	39.95 of gross expenses.
Fresh meat.....	76	3,721 80	48 96	10.04 " " "
Clothing.....	70	5,424 60	77 49	14.63 " " "
Fuel.....	68	2,907 00	42 75	7.84 " " "
Rent.....	52	4,056 00	78 00	10.93 " " "
Sickness.....	48	2,488 80	51 85	6.71 " " "
Interest, insurance, taxes.....	13	317 40	24 41	0.85 " " "
Education.....	65	1,250 40	19 23	3.37 " " "
Society dues.....	11	100 80	9 16	1.27 " " "
Sundries.....	64	2,010 00	31 40	5.41 " " "
Aggregate family expenses.....	77	37,093 20	481 73	3.94 above gross income.
Daily expenses per family.....	77	.....	1 32	71.00 were below the average.
Yearly expenses per person.....	363	.....	102 18	.....
Daily expenses per person.....	363	.....	28	.....
Incomes above expenses.....	35	3,955 20	113 00	11.10 of gross income.
Expenses above incomes.....	42	5,416 44	128 96	15.20 more than gross income.
Net deficit.....	77	1,461 24	18 97	4.10 above gross incomes.

Below the average: 44 family incomes, 55 family expenses, 26 father's daily wages.

LABORERS—CONTINUED.

KANSAS CITY.

Summary of 89 monthly reports for 10 months, from January to October, 1888, inclusive. Number reported each month, average family membership, days worked, and wages per day were as follows: Nine for January, average 6.4 persons to family, worked 6.8 days at \$1.66 per day; 9 for February, average 6.4 to family, 12.8 days at \$1.72; 8 for March, average 6.4 to family, 19.9 days at \$1.72; 13 for April, average 6.7 to family, 21.8 days at \$1.78; 10 for May, average 5.8 to family, 24.2 days at \$1.62; 6 for June, average 6 to family, 25.3 days at \$1.58; 9 for July (2 railroad section hands at \$1.15 per day), average 4.8 to family, 24.3 days at \$1.45; 8 for August (3 railroad section hands at \$1.15 per day), average 4.7 to family 26.1 days at \$1.41; 9 for September (3 railroad section hands at \$1.15 per day), average 4.2 to family, 22.2 days at \$1.58; 7 for October (4 railroad section hands at \$1.15 per day), average 4.6 to family, 25.8 days at \$1.37 per day. Parents, 175; sons, 148; daughters, 143; other persons, 42. Native-born adults, 157; foreign-born adults, 18. Average age of employed: men, 38; women, 36; sons, 18; daughters, 17.5. Average number of hours, employed daily: men, 10. Paid weekly, 66; semi-monthly, 3; monthly, 20; had wages withheld, 17—15 days each; preferred weekly payment of wages, 28. Belonged to labor organizations, 20. Had life insurance, 17; amount, \$24,000; had weekly benefits, 18; average amount, \$4. Owned homes, 28; homes mortgaged, 8; aggregate amount, \$1,650; annual interest, 8.5 per cent. Had personal property mortgaged, 5; monthly interest, 10.4 per cent. Highest daily wages, \$2; lowest, \$1.15. Highest monthly family income, \$165.25; lowest, \$5.25. Highest monthly family expense, \$137.65; lowest, \$19. Average number rooms rented, 3; monthly rent per room, \$2.65.

	No. re- ported.	Tota's.	Averages.	Percentages.
Persons in families	89	508	5.7 ₁₀	
Persons employed.....	89	121		24.00 of all persons reported.
Children at school.....	49	88		30.00 of 291, total numb'r reported
Men's daily wages.....	89	\$132 61	\$1 49	52.00 were below the average.
Women's daily wages.....	7	6 75	97	14.00 " "
Sons' daily wages.....	17	22 00	\$1 29	29.00 " "
Daughter's daily wages.....	9	7 68	85	33.00 " "
Days employed, men.....	89	18,640	209	80.24 of working days.
" " women.....	7	1,230	176	67.32 " "
" " sons.....	17	3,250	191	73.24 " "
" " daughters.....	9	2,150	239	91.10 " "
Men's earnings.....	89	\$29,390 00	\$330 22	79.39 of gross earnings.
Women's earnings.....	7	1,205 00	172 14	3.25 " "
Sons' earnings.....	17	4,600	270 59	12.43 " "
Daughter's earnings.....	9	1,824 20	202 69	4.93 " "
Incomes from other sources.....	16	6,180 00	386 25	14.30 of gross incomes.
Aggregate incomes and earnings	89	43,199 20	485 38	13.50 above gross expenses.
Daily income per family.....	89		1 59	72.00 were below the average.
Income per person.....	508		85 03	
Daily income per person.....	508		27.1 ₁₀	
FAMILY EXPENSES.				
Groceries.....	88	\$13,112 50	\$149 00	34.45 of gross expenses.
Fresh meat.....	87	3,620 50	41 61	9.51 " "
Clothing.....	87	6,938 50	79 75	18.23 " "
Fuel.....	57	1,675 00	29 38	4.40 " "
Rent.....	59	4,755 00	80 59	12.50 " "
Sickness.....	75	1,923 50	25 64	5.06 " "
Interest, insurance, taxes.....	21	595 00	28 33	1.57 " "
Education.....	81	1,255 00	15 49	3.29 " "
Society dues.....	29	311 50	10 74	0.82 " "
Sundries.....	87	3,872 50	44 97	10.17 " "
Aggregate family expenses.....	89	38,059 00	427 63	88.10 of gross income.
Daily expenses per family.....	89		1 40	72.00 were below the average.
Expenses per person.....	508		74 92	
Daily expenses per person.....	508		24.5 ₁₀	
Incomes above expenses.....	31	6,905 20	114 84	15.98 of gross income.
Expenses above incomes.....	7	1,765 00	63 04	4.08 more than gross income.
Net surplus.....	89	5,140 20	57 75	11.90 of gross incomes.

Below the average: 64 family incomes, 64 family expenses, 47 father's daily wages.

LABORERS—CONTINUED.

LEAVENWORTH.

Summary of 27 monthly reports, for 9 months, from January to October, 1888, inclusive, except April. Number reported each month, average family membership, days worked, and wages per day, were as follows: 7 for January, averaging $6\frac{2}{3}$ to family, worked an average of 16 days each at \$1.36 per day; 5 for February, averaging 5 to family, 3 worked an average of $19\frac{1}{2}$ days each, at \$1.30, and 2 were idle; 5 for March, 6 to family, worked 22 days each, at \$1.50; 1 for May, 8 in family, worked 26 days, at \$1.50; 2 for June, 7 to family, worked $26\frac{1}{2}$ days each, at \$1.50; 2 for July, $3\frac{1}{2}$ to family, worked 25 days each, at \$1.50; 2 for August, $4\frac{1}{2}$ to family, worked an average of $21\frac{1}{2}$ days, at \$1.50; 1 for September, 4 in family, worked 10 days, at \$1.50; 2 for October, 5 to family, worked $24\frac{1}{2}$ days, at an average daily wage of \$1.33. Parents, 53; sons, 49; daughters, 49; native-born adults, 42; foreign-born adults, 11. Average age of employed, men, 38; women, 34; sons, 19; daughters, 14. Average number of hours employed daily, men, 10; women, 11; sons, $10\frac{1}{2}$; daughters, 12. Paid weekly, 14; semi-monthly, 8; monthly, 5; had wages withheld, 5—15 days each; preferred weekly payment of wages, 25; belonged to labor organizations, 12. Had life insurance, 2; amount, \$3,000. Owned homes, 8; homes mortgaged, 2; aggregate amount, \$700; annual interest, 9 per cent. Highest daily wages, \$1.75; lowest, \$1. Highest monthly family income, \$104; lowest, \$6. Highest monthly family expense, \$61.80; lowest, \$24. Average number rooms rented, $2\frac{1}{2}$; monthly rent per room, \$2.73. Average price of fresh meat per pound, 10 cents; coal per ton, \$3.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	27	151	$5\frac{3}{4}$	.....
Persons employed.....	27	33	$1\frac{1}{4}$	21.00 of all persons reported.
Children at school.....	17	42	$2\frac{1}{2}$	43.00 of 97, total number reported
Men's daily wages.....	25	\$85 50	\$1 42	32.00 were below the average.
Women's daily wages.....	1	1 00	1 00	.....
Sons' daily wages.....	7	8 35	1 19	42.86 " " " "
Daughters' daily wages.....	1	15	15	.....
Days employed, men.....	24	4,617	192	80.10 of working days.
" " women.....	1	45	45	19.06 " " " "
" " sons.....	7	1,350	193	81.72 " " " "
" " daughters.....	1	252	252	6.78 more than working days.
Men's earnings.....	24	\$6,690 15	\$278 76	79.49 of gross earnings.
Women's earnings.....	1	45 00	45 00	0.54 " " " "
Sons' earnings.....	7	1,643 40	234 77	19.52 " " " "
Daughters' earnings.....	1	37 80	37 80	0.44 " " " "
Incomes from other sources.....	2	288 00	144 00	3.42 of gross incomes.
Aggregate incomes and earnings.....	27	8,704 35	322 38	92.72 of gross expenses.
Daily income per family.....	27	.....	1 17	61.00 were below the average.
Income per person.....	151	.....	57 64	.....
Daily income per person.....	151	.....	21	.....
FAMILY EXPENSES.				
Groceries.....	27	\$3,334 50	\$123 50	35.52 of gross expenses.
Fresh meat.....	27	1,057 95	39 18	11.27 " " " "
Clothing.....	26	1,514 25	58 24	16.13 " " " "
Fuel.....	23	800 10	34 78	8.52 " " " "
Rent.....	19	1,057 50	55 66	11.27 " " " "
Sickness.....	22	446 40	20 29	4.76 " " " "
Interest, insurance, taxes.....	6	144 00	24 00	1.53 " " " "
Education.....	22	305 10	13 89	3.26 " " " "
Society dues.....	7	36 00	5 14	0.38 " " " "
Boarding.....	1	9 00	9 00	0.09 " " " "
Sundries.....	18	682 20	37 90	7.27 " " " "
Aggregate family expenses.....	27	9,387 00	347 66	7.84 of gross income.
Daily expenses per family.....	27	.....	1 26	74.07 were below the average.
Expenses per person.....	151	.....	60 51	.....
Daily expenses per person.....	151	.....	22	.....
Incomes above expenses.....	12	892 35	74 36	10.25 of gross income.
Expenses above incomes.....	15	1,575 00	105 00	18.09 more than gross income.
Net deficit.....	27	682 65	25 28	7.84 above gross incomes.

Below the average: 17 family incomes, 20 family expenses, 8 father's daily wages.

LABORERS—CONCLUDED.

TOPEKA.

Summary of 96 monthly reports for 10 months, from January to October, 1888, inclusive. The number reported each month, average family membership, days worked and wages per day were as follows: 15 for January, averaging 4 in family, 8 were idle, and 7 worked an average of $8\frac{1}{2}$ days at \$1.40 per day; 3 for February, 4 to family, 1 idle, 2 worked 5 days each at \$1.42; 19 for March, $4\frac{1}{2}$ to family, 4 were idle, and 15 worked an average of $8\frac{1}{2}$ days each at \$1.40; 7 for April, 4 to family, all worked an average of 17 days each at \$1.44; 6 for May, 3 to family, worked an average of $20\frac{1}{2}$ days at \$1.50; 6 for June, 4 to family, worked an average of $22\frac{1}{2}$ days at \$1.58; 11 for July, 4 to family, worked an average of 22 days at \$1.60; 8 for August, 5 to family, worked an average of 22 days at \$1.60; 3 for September, $4\frac{1}{2}$ to family, worked an average of $13\frac{1}{2}$ days at \$1.50; 13 for October, $3\frac{1}{2}$ to family, worked an average of 22 days at \$1.54. Parents, 179; sons, 91; daughters, 108; other persons, 7; native-born adults, 161; foreign-born adults, 11. Average age of employed: men, $37\frac{1}{2}$; women, 27; sons, 18. Average number of hours employed daily: men, 10; women, 10; sons, 10. Paid weekly, 20; semi-monthly, 48; monthly, 11; had wages withheld, 5—13 days each; preferred weekly payment of wages, 90; belonged to labor organizations, 1; had life insurance, 1; amount, \$2,000; had weekly benefits, 2; average amount, \$3. Owned homes, 40; homes mortgaged, 16; aggregate amount, \$4,150; annual interest, 9 per cent.; had personal property mortgaged, 1; monthly interest, 2 per cent. Highest daily wages, \$2.33; lowest, 60 cents. Highest monthly family income, \$100; lowest, \$1.40. Highest monthly family expense, \$66; lowest, \$12.75. Average number of rooms rented, $2\frac{1}{2}$; monthly rent per room, \$2.66. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	96	385	4	.....
Persons employed.....	95	95	.....	24.67 of all persons reported.
Children at school.....	33	60	.....	30.15 of 199, total number report'd
Men's daily wages.....	89	\$134 56	\$1 51	18.00 were below the average.
Women's daily wages.....	5	3 00	60	80.00 " " "
Sons' daily wages.....	1	1 00	1 00	.....
Days employed, men.....	89	14,510	163	62.45 of working days.
" " women.....	5	260	52	23.75 " " "
" " sons.....	1	200	200	76.62 " " "
Men's earnings.....	89	\$22,449 70	\$252 24	98.48 of gross earnings.
Women's earnings.....	5	145 00	29 00	0.64 " " "
Sons' earnings.....	1	200 00	200 00	0.88 " " "
Incomes from other sources.....	8	1,262 50	157 81	5.25 of gross incomes.
Aggregate incomes and earnings.....	96	24,057 20	250 60	87.79 of gross expenses.
Daily income per family.....	96	.....	82½	38.54 were below the average.
Income per person.....	385	.....	62 46	.....
Daily income per person.....	385	.....	20½	.....
FAMILY EXPENSES.				
Groceries.....	91	\$11,519 50	\$126 60	42.04 of gross expenses.
Fresh meat.....	80	2,619 50	32 74	9.56 " " "
Clothing.....	53	2,965 50	56 00	10.82 " " "
Fuel.....	68	2,763 60	40 64	10.07 " " "
Rent.....	47	2,870 80	61 08	10.44 " " "
Sickness.....	44	1,947 60	44 26	7.10 " " "
Interest, insurance, taxes.....	7	162 50	23 21	0.68 " " "
Education.....	27	575 50	21 31	2.10 " " "
Society dues.....	21	190 00	9 05	0.69 " " "
Boarding.....	4	520 00	130 00	1.89 " " "
Sundries.....	45	1,265 90	28 13	4.61 " " "
Aggregate family expenses.....	96	27,400 40	285 42	13.89 above gross income.
Daily expense per family.....	96	.....	93½	59.38 were below the average.
Expenses per person.....	385	.....	71 17	.....
Daily expense per person.....	385	.....	23½	.....
Incomes above expenses.....	41	4,291 70	104 67	17.84 of gross income.
Expenses above incomes.....	55	7,634 90	138 82	31.73 more than gross income.
Net deficit.....	96	3,343 20	34 82	13.89 more than gross incomes.

Below the average: 37 family incomes, 57 family expenses, 16 father's daily wages.

STONE-CUTTERS.

TOPEKA.

Summary of 41 monthly reports for 10 months, January to October, 1888, inclusive. Number reported each month, average family membership, days worked and wages per day were as follows: 7 for January, $3\frac{5}{7}$ persons to family, 4 idle, 3 worked an average of 10 days at \$3.33; 9 for February, 3 to family, 5 idle, 4 worked an average of $13\frac{1}{2}$ days each at \$3.55; 3 for March, $4\frac{2}{3}$ to family, worked an average of $9\frac{1}{2}$ days each at \$3.60; 2 for April, 5 to family, worked $22\frac{1}{2}$ days each at \$3.60; 4 for May, $2\frac{2}{3}$ to family, worked at average of 25 days each at \$3.60; 4 for June, $3\frac{1}{2}$ to family, worked an average of $22\frac{1}{2}$ days each at \$3.60; 4 for July, 3 to family, worked $23\frac{1}{2}$ days each at \$3.60; 6 for August, $4\frac{1}{3}$ to family, worked $24\frac{1}{2}$ days on an average at \$3.60; 1 for September, worked $23\frac{7}{8}$ days at \$3.60, and 2 for October, worked $24\frac{1}{2}$ days at \$3.60. Parents, 41; sons, 35; daughters, 42; other persons, 4. Native-born adults, 34; foreign-born adults, 40. Average age of employed: men, $33\frac{1}{3}$. Average number of hours employed daily: men, 8. Paid weekly, 1; semi-monthly, 35; monthly, 2; had wages withheld, 2—20 days each; preferred weekly payment of wages, 41; belonged to labor organizations, 39; locked out, 2; had life insurance, 7; amount, \$10,200; owned homes, 10; homes mortgaged, 3; aggregate amount, \$1,400; annual interest, $7\frac{1}{2}$ per cent. Highest daily wages, \$3.60; lowest, \$3. Highest monthly family income, \$151.30; lowest, \$6. Highest monthly family expense, \$137.25; lowest, \$16.75. Average number rooms rented, 3; monthly rent per room, \$2.88. Coal per ton, \$4.50.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	41	157	$3\frac{4}{7}$	.....
Persons employed.....	41	41	.....	26.11 of all persons reported.
Children at school.....	5	10	.....	13.00 of 77, total number reported
Men's daily wages.....	36	\$127 40	\$3 54	19.44 were below the average.
Days employed, men.....	36	7,010	194 $\frac{1}{3}$	71.54 of working days.
Men's earnings.....	36	\$24,948 30	\$693 00	100.00 of gross earnings.
Incomes from other sources.....	3	880 00	293 30	3.40 of gross incomes.
Aggregate incomes and earnings.....	41	25,828 30	629 90	26.09 above gross expenses.
Daily income per family.....	41	.....	2 06	36.83 were below the average.
Income per person.....	157	.....	164 50	.....
Daily income per person.....	157	.....	53 $\frac{1}{6}$	.....
FAMILY EXPENSES.				
Groceries.....	36	\$6,272 90	\$174 24	30.63 of gross expenses.
Fresh meat.....	33	1,711 50	51 86	8.35 " "
Clothing.....	30	2,706 00	90 20	13.07 " "
Fuel.....	31	1,170 70	37 76	5.72 " "
Rent.....	28	2,450 00	87 50	11.97 " "
Sickness.....	20	866 50	43 32	4.24 " "
Interest, insurance, taxes.....	2	155 00	77 50	0.78 " "
Education.....	33	1,057 50	32 04	5.17 " "
Society dues.....	38	509 60	13 41	2.51 " "
Boarding.....	11	1,630 00	148 20	8.00 " "
Sundries.....	29	1,953 90	67 37	9.56 " "
Aggregate family expenses.....	41	20,483 60	499 60	79.36 of gross income.
Daily expenses per family.....	41	.....	1 63 $\frac{1}{6}$	60.97 were below the average.
Expenses per person.....	157	.....	130 47	.....
Daily expenses per person.....	157	.....	42 $\frac{1}{6}$	.....
Incomes above expenses.....	30	8,653 30	288 44	33.50 of gross income.
Expenses above incomes.....	11	3,108 00	282 54	12 03 more than gross incomes.
Net surplus.....	41	5,545 30	135 25	21.47 of gross incomes.

Below the average: 15 family incomes, 25 family expenses, 7 father's daily wages.

STONEMASONS.

KANSAS CITY.

Summary of 9 monthly reports for 3 months, from August to October, 1888, inclusive. Number reported each month, average family membership, days worked and wages per day, as follows: 2 for August, $6\frac{1}{2}$ to family, worked an average of 23 days at \$3.50; 1 for September, 11 in family, worked 24 days at \$3.25; 6 in October, $6\frac{1}{2}$ to family, worked an average of $24\frac{1}{2}$ days at \$3.17. Parents, 18; sons, 22; daughters, 18; other persons, 4. Native-born adults, 10; foreign-born adults, 8. Average age of employed, men, $39\frac{1}{2}$; sons, 17. Average number of hours employed daily, men, 10; sons, 10. Paid weekly, 8; semi-monthly, 1; preferred weekly payment of of wages, 9. Belonged to labor organizations, 7. Had life insurance, 5; total amount, \$9,500; had weekly benefits, 1; amount, \$10. Owned homes, 5; homes mortgaged, 3; aggregate amount, \$1,050; annual interest, $8\frac{2}{3}$ per cent. Highest daily wages, \$3.50; lowest, \$2.75. Highest monthly family income, \$180; lowest, \$71.50. Highest monthly family expense, 139.40; lowest, \$36.50. Average number rooms rented, 4; monthly rent per room, \$3.22. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	<i>No. reported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in family.....	9	62	$6\frac{2}{3}$	.....
Persons employed.....	9	9	1	14.51 of all persons reported.
Children at school.....	6	14	$2\frac{1}{2}$	35.00 of 40, total number reported
Men's daily wages.....	9	\$28 85	\$3 20	33.33 were below the average.
Sons' daily wages.....	3	4 02	1 34	33.33 " " "
Days employed, men.....	9	648	72	91.14 of working days.
" " sons.....	3	221	$73\frac{2}{3}$	93.25 " " "
Men's earnings.....	9	\$2,064 75	\$229 41	87.04 of gross earnings.
Sons' earnings.....	3	307 50	102 50	12.96 " " "
Incomes from other sources.....	1	180 00	180 00	7.05 of gross incomes.
Aggregate incomes and earnings.....	9	2,552 25	282 47	44.06 above gross expenses.
Daily income per family.....	9	.....	3 07	66.66 were below the average.
Income per person.....	62	.....	41 16	.....
Daily income per person.....	62	.....	$44\frac{7}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	9	\$609 00	\$67 66	34.32 of gross expenses.
Fresh meat.....	9	172 95	19 21	9.77 " " "
Clothing.....	9	357 00	39 66	20.15 " " "
Fuel.....	7	87 75	12 53	4.95 " " "
Rent.....	4	154 50	38 62	8.72 " " "
Sickness.....	9	97 50	10 83	5.50 " " "
Interest, insurance, taxes.....	5	22 20	4 44	1.31 " " "
Education.....	9	87 75	9 75	4.95 " " "
Society dues.....	7	21 00	3 00	1.19 " " "
Sundries.....	9	162 00	18 00	9.14 " " "
Aggregate family expenses.....	9	1,771 65	196 85	69.02 of gross income.
Daily expenses per family.....	9	.....	2 13	66.66 were below the average.
Expenses per person.....	62	.....	28 57	.....
Daily expenses per person.....	62	.....	$31\frac{1}{2}$	.....
Incomes above expenses.....	9	780 60	86 73	30.58 of gross income.
Net surplus.....	9	780 60	86 73	30.50 of gross incomes.

Below the average: 6 family incomes, 6 family expenses, 3 father's daily wages.

STONEMASONS — CONCLUDED.

TOPEKA.

Summary of 15 monthly reports for 9 months, from January to October, 1888—no reports received for April. Number received each month, average family membership, number of days worked, and wages per day were as follows: One for January, 6 in family, worked 2 days, at \$3; 3 for February, $3\frac{2}{3}$ to family, worked an average of $4\frac{1}{2}$ days, at \$3.33; 1 for March, 5 in family, worked 10 days, at \$3.25; 1 for May, 4 in family, worked 22 days, at \$2; 1 for June, 5 in family, worked 10 days, at \$3.50; 2 for July, 5 to family, worked $20\frac{1}{2}$ days each, at \$3.13; 1 for August, 1 in family, worked 18 days, at \$3.25; 2 for September, $3\frac{1}{2}$ to family, worked an average of $16\frac{1}{2}$ days, at \$2.63; 3 for October, 3 to family, worked an average of 20 days, at \$3.09. Parents, 27; sons, 11; daughters, 20. Native-born adults, 25; foreign-born adults, 2. Average number of hours employed daily, men, 10. Paid weekly, 5; semi-monthly, 10; preferred weekly payment of wages, 15; belonged to labor organizations, 8. Had life insurance, 2; amount, \$4,000. Owned homes, 5; homes mortgaged, 5; aggregate amount, \$2,000; annual interest, $8\frac{1}{2}$ per cent. Highest daily wages, \$4.00; lowest, \$2. Highest monthly family income, \$66; lowest, \$6. Highest monthly family expense, \$64; lowest, \$20.40. Average number of rooms rented, $2\frac{2}{3}$; monthly rent per room, \$2.56. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.50.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	15	58	$3\frac{2}{3}$	25.86 of all persons reported.
Persons employed.....	15	15	.....	25.86 of all persons reported.
Children at school.....	8	8	.....	60.00 were below the average.
Men's daily wages.....	15	\$44 75	\$3 15	53.42 of all working days.
Days employed, men.....	15	1,876 $\frac{1}{2}$	125	100.00 of gross earnings.
Men's earnings.....	15	\$5,586 75	\$372 45	16.23 above gross expenses.
Aggregate incomes and earnings.....	15	5,586 75	372 45	46.66 were below the average.
Daily income per family.....	15	.....	1 35	.....
Income per person.....	58	.....	96 32	.....
Daily income per person.....	58	.....	35	.....
FAMILY EXPENSES.				
Groceries.....	12	\$1,706 40	\$142 20	35.51 of gross expenses.
Fresh meat.....	12	461 16	38 43	9.59 " " "
Clothing.....	11	798 75	72 61	16.62 " " "
Fuel.....	10	346 50	34 65	7.22 " " "
Rent.....	6	369 00	61 50	7.67 " " "
Sickness.....	5	51 75	10 35	1.07 " " "
Interest, insurance, taxes.....	3	175 50	58 50	3.65 " " "
Education.....	13	119 70	9 20	2.50 " " "
Society dues.....	5	40 50	8 10	0.84 " " "
Boarding.....	3	414 00	138 00	8.61 " " "
Sundries.....	12	323 10	26 92	6.72 " " "
Aggregate family expenses.....	15	4,806 36	320 42	86.03 of gross income.
Daily expenses per family.....	15	.....	1 16 $\frac{1}{2}$	60.00 were below the average.
Expenses per person.....	58	.....	82 87	.....
Daily expenses per person.....	58	.....	30 $\frac{3}{8}$	.....
Incomes above expenses.....	10	1,575 99	157 59	28.20 of gross income.
Expenses above incomes.....	5	795 15	159 03	14.23 more than gross income.
Net surplus.....	15	780 84	52 06	13.97 of gross incomes.

Below the average: 7 family incomes, 9 family expenses, 8 father's daily wages.

MACHINISTS.

ATCHISON.

Summary of 12 monthly reports for 6 months, from May to October, inclusive. Number reported each month, average family membership, days worked, and wages per day, were as follows: One for May, 3 persons in family, worked 26 days at \$2.50 per day; 2 for June averaged 5.5 to family, 26 days at \$2.50; 3 for July averaged 5.6 to family, 25.6 days at \$2.58; 2 for August averaged 6 to family, 26 days at \$2.62; 2 for September averaged 5 to family, 25 days at \$2.62; 2 for October averaged 6 to family, 26.5 days at \$2.62. Parents, 22; sons, 19; daughters, 23; other persons, 1. Native-born adults, 6; foreign-born adults, 16. Average age of employed: men, 40; sons, 19. Average number of hours employed daily: men, 10. Paid weekly, 10; monthly, 2; had wages withheld, 2—16 days each; preferred weekly payment of wages, 2. Belonged to labor organizations, 7; had life insurance, 8; amount, \$12,500; had weekly benefits, 5; average amount, \$4.20. Owned homes, 6; homes mortgaged, 1; aggregate amount, \$400; annual interest, 8 per cent. Highest daily wages, \$2.75; lowest, \$2.50. Highest monthly family income, \$168.75; lowest, \$65. Highest monthly family expense, \$136.40; lowest, \$41.50. Average number of rooms rented, 3.3; monthly rent per room, \$2.87.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	12	65	5 ⁴ / ₁₀	
Persons employed.....	12	16		24.00 of all persons reported.
Children at school.....	3	6		14.00 of 42, total number reported
Men's daily wages.....	12	\$31 00	\$2 58	66.00 were below the average.
Sons' daily wages.....	4	6 17	1 54	50.00 " " "
Days employed, men.....	12	1,860	155	98.00 of working days.
" sons.....	4	642	160	87.22 of all days.
Men's earnings.....	12	\$4,801 50	\$400 13	82.95 of gross earnings.
Sons' earnings.....	4	987 00	246 75	17.05 " " "
Incomes from other sources.....	1	48 00	48 00	0.82 of gross incomes.
Aggregate incomes and earnings.....	12	5,836 50	486 38	28.61 above gross expenses.
Daily income per family.....	12		2 64	75.00 were below the average.
Income per person.....	65		89 48	
Daily income per person.....	65		48 ⁶ / ₁₀	
FAMILY EXPENSES.				
Groceries.....	12	\$1,398 00	\$116 50	30.86 of gross expenses.
Fresh meat.....	12	396 00	33 00	8.74 " " "
Clothing.....	12	891 00	74 26	19.67 " " "
Fuel.....	9	237 00	26 33	5.23 " " "
Rent.....	6	345 00	57 50	7.63 " " "
Sickness.....	12	234 00	19 50	5.16 " " "
Interest, insurance, taxes.....	9	190 80	21 20	4.21 " " "
Education.....	12	189 00	15 75	4.17 " " "
Society dues.....	8	55 50	6 94	1.22 " " "
Sundries.....	12	594 00	49 50	13.11 " " "
Aggregate family expenses.....	12	4,530 30	377 52	77.62 of gross income.
Daily expenses per family.....	12		2 05	66.66 were below the average.
Expenses per person.....	65		69 69	
Daily expenses per person.....	65		37 ⁸ / ₁₀	
Incomes above expenses.....	11	1,312 20	119 29	22.48 of gross income.
Expenses above incomes.....	1	6 00	6 00	0.10 more than gross income.
Net surplus.....	12	1,306 20	108 85	22.38 of gross incomes.

Below the average: 9 family incomes, 8 family expenses, 8 father's daily wages.

MACHINISTS—CONCLUDED.

KANSAS CITY.

Summary of 33 monthly reports, for 6 months, from May to October, 1888, inclusive. Number reported each month, average family membership, days worked, and wages per day were as follows: 4 for May, $5\frac{1}{2}$ to family, worked an average of $24\frac{1}{2}$ days, at \$2.75; 5 for June, worked an average of $23\frac{3}{4}$ days, at \$2.52; 3 for July, 6 to family, worked an average of 24 days, at \$2.50; 5 for August, $6\frac{1}{2}$ to family, worked an average of $25\frac{1}{2}$ days, at \$2.69; 5 for September, $5\frac{1}{2}$ to family, worked an average of 26 days, at \$2.53; 10 for October, $6\frac{1}{10}$ to family, worked an average of $25\frac{9}{10}$ days, at \$2.60. Parents, 60; sons, 70; daughters, 54; other persons, 13; native-born adults, 44; foreign-born adults, 16. Average age of employed: men, 39; sons, 19. Average number of hours employed daily: men, 9 $\frac{1}{2}$; sons, 10. Paid weekly, 9; semi-monthly, 4; monthly, 20; had wages withheld, 20— $15\frac{1}{2}$ days each; preferred weekly payment of wages, 30; belonged to labor organizations, 20. Had life insurance, 20; total amount, \$35,000; had weekly benefits, 13; amount, \$69. Owned homes, 13; homes mortgaged, 7; aggregate amount, \$2,350; annual interest, 9 per cent. Highest daily wages, \$3; lowest, \$2.25. Highest monthly family income, \$188.96; lowest, \$39.68. Highest monthly family expense, \$148.70; lowest, \$38.75. Average number rooms rented, 4; monthly rent per room, \$3.14. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.15.

	<i>No. re- ported.</i>	<i>Totals.</i>	<i>Averages.</i>	<i>Percentages.</i>
Persons in families.....	33	197	$5\frac{9}{10}$	.....
Persons employed.....	33	39	.....	20.00 of all persons reported.
Children at school.....	18	40	.....	30.00 of 131, total number reported
Men's daily wages.....	33	\$85 75	\$2 60	63.00 were below the average.
Sons' daily wages.....	6	6 00	1 69	66.66 " " "
Days employed, men.....	33	5,070	$153\frac{3}{4}$	97.23 of working days.
" " sons.....	6	936	156	98.73 " " "
Men's earnings.....	33	\$12,753 66	\$386 47	88.95 of gross earnings.
Sons' earnings.....	6	1,584 00	264 00	11.05 " " "
Incomes from other sources.....	5	1,320 00	264 00	8.43 of gross incomes.
Aggregate incomes and earnings.....	33	15,657 66	474 50	18.11 above gross expenses.
Daily income per family.....	33	.....	2 58	72.73 were below the average.
Income per person.....	197	.....	79 48	.....
Daily income per person.....	197	.....	$43\frac{1}{2}$	.....
FAMILY EXPENSES.				
Groceries.....	33	\$4,032 00	\$122 18	30.41 of gross expenses.
Fresh meat.....	33	1,162 50	35 23	8.76 " " "
Clothing.....	33	2,406 30	72 92	18.15 " " "
Fuel.....	29	756 00	26 07	5.70 " " "
Rent.....	19	1,434 00	75 47	10.81 " " "
Sickness.....	33	813 00	24 64	6.13 " " "
Interest, insurance, taxes.....	21	273 90	13 04	2.06 " " "
Education.....	32	522 00	16 31	3.97 " " "
Society dues.....	21	141 00	6 71	1.06 " " "
Sundries.....	33	1,716 00	52 00	12.95 " " "
Aggregate family expenses.....	33	13,256 70	401 72	84.03 of gross income.
Daily expenses per family.....	33	.....	2 18	63.63 were below the average.
Expenses per person.....	197	.....	67 29	.....
Daily expenses per person.....	197	.....	$36\frac{1}{2}$	.....
Incomes above expenses.....	5	2,897 88	103 50	18.51 of gross income.
Expenses above incomes.....	28	496 92	99 38	3.17 more than gross income.
Net surplus.....	33	2,400 96	72 72	15.34 of gross incomes.

Below the average: 24 family incomes, 21 family expenses, 21 father's daily wages.

COAL MINERS.

LEAVENWORTH.

Summary of 16 monthly reports for 2 months (January and February, 1888). Number reported each month, average family membership, days worked, and wages per day, were as follows: 8 for January, $4\frac{1}{2}$ persons to family, 7 worked an average of 18 days each at \$2.29 per day; 1 was idle, but son worked 25 days at \$2.60; 8 for February, 4 to family, worked 10 days each at \$2. Parents, 30; sons, 20; daughters, 18. Native-born adults, 4; foreign-born adults, 26. Average age of employed, men, 37; sons, 19. Average number of hours employed daily, men, 10; sons, 10. Paid semi-monthly, 15; had wages withheld, 15—6 days each; preferred weekly payment of wages, 6. Belonged to labor organizations, 14. Locked out 12. Owned homes, 2. Highest daily wages, \$3.04; lowest, \$1.75. Highest monthly family income, \$70; lowest, \$19.80. Highest monthly family expense, \$74.50; lowest, \$19.12. Average number of rooms rented, $2\frac{5}{11}$; monthly rent per room, \$2.66. Average price of fresh meat per pound, 10 cents; coal per ton, \$3.22.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	16	68	$4\frac{3}{4}$	.....
Persons employed.....	16	18	$1\frac{1}{2}$	26.00 of all persons reported.
Children at school.....	5	11	$2\frac{2}{10}$	30.00 of 36, total number reported
Men's daily wages.....	15	\$31 67	\$2 11	50.00 were below the average.
Sons' daily wages.....	3	4 85	1 28	.....
Days employed, men.....	15	460	31	60.13 of working days.
Days employed, sons.....	3	114	38	74.51 " "
Men's earnings.....	15	\$943 10	62 87	81.93 of gross earnings.
Sons' earnings.....	3	208 00	69 33	18.07 " "
Aggregate incomes and earnings.....	16	1,151 10	72 00	82.64 below gross expenses.
Daily income per family.....	16	.....	1 20	62.00 were below the average.
Income per person.....	68	.....	16 32	.....
Daily income per person.....	68	.....	$28\frac{1}{5}$	.....
FAMILY EXPENSES.				
Groceries.....	15	\$450 16	\$30 01	32.32 of gross expenses.
Fresh meat.....	15	181 02	12 07	12.99 " "
Clothing.....	14	216 28	15 45	15.53 " "
Fuel.....	14	96 00	6 86	6.89 " "
Rent.....	13	143 44	11 03	10.29 " "
Sickness.....	12	174 00	14 50	12.50 " "
Interest, insurance, taxes.....	4	44 00	11 00	3.16 " "
Education.....	9	20 70	2 30	1.48 " "
Society dues.....	6	3 00	60	0.22 " "
Boarding.....	1	56 00	56 00	4.02 " "
Sundries.....	1	8 30	8 30	0.60 " "
Aggregate family expenses.....	16	1,392 90	84 53	17.36 above gross income.
Daily expenses per family.....	16	.....	1 41	37.00 were below the average.
Expenses per person.....	68	.....	19 89	.....
Daily expenses per person.....	68	.....	$33\frac{3}{5}$	.....
Incomes above expenses.....	3	49 58	16 73	4.30 of gross income.
Expenses above incomes.....	13	291 38	22 41	25.31 more than gross income.
Net deficit.....	16	241 80	15 11	21.01 more than gross incomes.

Below the average: 10 family incomes, 6 family expenses, 8 father's daily wages.

COAL MINERS—CONCLUDED.

OSAGE COUNTY.

Summary of 116 monthly reports from Osage county for 10 months, from October, 1887, to July, 1888, inclusive. Number reported each month, average family membership, days worked and earnings per pay, were as follows: 12 for October, 1887, average 6 persons to family, worked 20.8 days at \$2.08 per day; 11 for November, average 5½ to family, 21 days at \$2.18; 10 for December, average 6.4 to family, 23.3 days at \$2.71; 19 for January, 1888, average 6.4 to family, 22.2 days at \$2.77; 11 for February, average 6.3 to family, 10.3 days at \$2.22; 11 for March, average 7 to family, 20.8 days at \$1.92; 11 for April, average 6.1 to family, 17 days at \$1.67; 16 for May, average 5.8 to family, 18 days at \$1.65; 8 for June, average 7 to family, 18 days at \$2.26; 8 for July, average 7.5 to family, (3 idle) 11.6 days at \$1.64 per day. *Employed at piece work, 77, producing 42,441 bushels of coal. Parents, 228; sons, 239; daughters, 231; other persons, 34; unmarried men, 3. Native-born adults, 51; foreign-born adults, 104. Average number of hours employed daily, men, 10.3. Paid semi-monthly, 47; monthly, 38; had wages withheld, 64—15 days each; preferred weekly payment of wages, 79. Belonged to labor organizations, 35; †locked out, 8. Had life insurance, 2; amount, \$4,000. Owned homes, 60; homes mortgaged, 21; aggregate amount, \$3,516; annual interest 10.2 per cent. Highest daily wages, \$4.52; lowest, 85 cents. Highest monthly family income, \$120; lowest, \$3.57. Highest monthly family expense, \$86; lowest, \$15. Average number rooms rented, 3.5; monthly rent per room, \$1.49.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	116	732	6 ³ / ₁₀	17.00 of all persons reported.
Persons employed.....	116	123	.....	34.00 of 470, total number reported
Children at school.....	53	156	.....	59.00 were below the average.
Men's daily wages.....	109	\$243 07	\$2 23	69.00 were below the average.
Sons' daily wages.....	13	247 50	1 32	33.00 were below the average.
Daughters' daily wages.....	3	12 00	21 ¹ / ₂	74.20 of working days.
Days employed, men.....	109	21,110	193 ³ / ₁₀	72.00 " " "
" " sons.....	10	1,880	188	53.64 " " "
" " daughters.....	1	140	140	94.77 of gross earnings.
Men's earnings.....	109	\$47,210 10	\$433 12	4.97 " " "
Sons' earnings.....	13	2,475 00	190 38	5.21 " " "
Daughters' earnings.....	4	130 00	32 50	6.89 of gross incomes.
Incomes from other sources.....	12	3,689 40	308 27	10.04 above gross expenses.
Aggregate incomes and earnings.....	116	53,504 50	461 24	50.00 were below the average.
Daily income per family.....	116	.....	1 51	.....
Income per person.....	732	.....	73 09	.....
Daily income per person.....	732	.....	23 ⁹ / ₁₀	.....
FAMILY EXPENSES.				
Groceries.....	114	\$23,715 60	\$208 03	48.78 of gross expenses.
Fresh meat.....	105	4,263 30	40 60	8.77 " " "
Clothing.....	94	6,832 50	72 68	14.05 " " "
Fuel.....	92	2,679 60	29 12	5.51 " " "
Rent.....	56	2,920 00	52 18	6.00 " " "
Sickness.....	91	1,463 80	16 08	3.01 " " "
Interest, insurance, taxes.....	32	940 30	29 38	1.94 " " "
Education.....	56	821 20	14 66	1.69 " " "
Society dues.....	39	355 80	9 13	0.73 " " "
Boarding.....	10	559 50	55 95	1.15 " " "
Sundries.....	65	4,070 30	62 62	8.37 " " "
Aggregate family expenses.....	116	48,621 90	419 15	90.87 of gross income.
Daily expenses per family.....	116	.....	1 37	57.00 were below the average.
Expenses per person.....	732	.....	66 42	.....
Daily expenses per person.....	732	.....	21 ¹ / ₁₀	.....
Incomes above expenses.....	70	9,361 40	133 72	17.50 of gross income.
Expenses above incomes.....	40	4,478 80	111 97	8.37 more than gross income.
Net surplus.....	116	4,882 60	42 09	9.13 of gross incomes.

Below the average: 58 family incomes, 67 family expenses, 64 father's daily wages.

*For the seven months of 1888.

†Refused to accept a reduction of 1 cent per bushel; price restored, and lock-out ceased.

MOULDERS.

KANSAS CITY.

Summary of 5 monthly reports for October, 1888. Number reporting, average family membership, days worked, and wages per day, were as follows: Parents, 10; sons, 10; daughters, 7. Native-born adults, 6; foreign-born adults, 4. Average age of employed: men, 39 $\frac{3}{4}$; sons, 19. Average number of hours employed daily: men, 10; sons, 10. Paid weekly, 5. Belonged to labor organizations, 5. Had life insurance, 4; amount, \$5,500; had weekly benefits, 1; amount, \$9. Owned homes, 4; homes mortgaged, 1; aggregate amount, \$400; annual interest, 8 per cent. Highest daily wages, \$2.75; lowest, \$2.50. Highest family income, \$109; lowest, \$62.50. Highest family expense, \$73; lowest, \$36. Average number of rooms rented, 3; monthly rent per room, \$3.33. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	5	27	5 $\frac{1}{2}$	.....
Persons employed.....	5	6	1 $\frac{1}{10}$	22.00 of all persons reported.
Children at school.....	4	10	2 $\frac{5}{10}$	59.00 of 17, total number reported
Men's daily wages.....	5	\$12 75	\$2 55	80.00 were below the average.
Sons' daily wages.....	1	2 00	2 00	.....
Days employed, men.....	5	120	24	88.88 of working days.
“ “ sons.....	1	27	27	100.00 “ “
Men's monthly earnings.....	5	\$305 00	\$61 00	84.96 of gross earnings.
Sons' monthly earnings.....	1	54 00	54 00	15.04 “ “
Aggregate incomes and earnings.....	5	359 00	71 80	24.95 of gross expenses.
Daily income per family.....	5	.....	2 30 $\frac{3}{4}$	80.00 were below the average.
Monthly income per person.....	27	.....	13 30	.....
Daily income per person.....	27	.....	43	.....
MONTHLY FAMILY EXPENSES.				
Groceries.....	5	\$94 00	\$18 80	32.75 of gross expenses.
Fresh meat.....	5	24 30	4 86	8.46 “ “
Clothing.....	5	71 50	14 30	24.91 “ “
Fuel.....	5	24 25	4 85	8.45 “ “
Rent.....	1	10 00	10 00	3.47 “ “
Sickness.....	5	15 00	3 00	5.21 “ “
Interest, insurance, taxes.....	4	8 75	2 19	3.03 “ “
Education.....	5	10 50	2 10	3.64 “ “
Society dues.....	1	1 50	1 50	0.51 “ “
Sundries.....	5	27 50	5 50	9.57 “ “
Aggregate family expenses.....	5	287 30	57 46	80.02 of gross income.
Daily expenses per family.....	5	.....	1 85	40.00 were below the average.
Monthly expenses per person.....	27	.....	10 64	.....
Daily expenses per person.....	27	.....	34 $\frac{1}{2}$	.....
Incomes above expenses.....	4	72 50	18 12	20.19 of gross income.
Expenses above incomes.....	1	80	80	0.22 more than gross income.
Net surplus.....	5	71 70	14 34	19.97 of gross incomes.

Below the average: 4 family incomes, 2 family expenses, 4 father's daily wages.

MOULDERS—CONCLUDED.

LEAVENWORTH.

Summary of 28 monthly reports for 9 months, from January to October, inclusive—omitting April—number reported each month, average family membership, days worked, and wages per day, as follows: One for January, 6 in family, idle; 1 for February, 7 in family, worked 12 days at \$2.75; 1 for March, 4 in family, worked 15 days at \$2.75; 10 for May, $5\frac{1}{10}$ to family, worked an average of $19\frac{1}{2}$ days at \$2.57; 3 for June, $3\frac{3}{8}$ to family, worked an average of 14 days at \$2.41; 3 for July, $5\frac{1}{8}$ to family, worked an average of 19 days at \$2.67; 2 for August, 5 to family, worked 27 days each at \$2.50; 5 for September, $7\frac{2}{3}$ to family, worked an average of $22\frac{3}{4}$ days at \$2.55; 2 for October, 5 to family, worked an average of $23\frac{1}{2}$ days at \$2.50. Parents, 55; sons, 49; daughters, 55. Native-born adults, 18; foreign-born adults, 37. Average age of employed, men, 38; sons, 19. Average number of hours employed daily, men, 10; sons, 10. Paid weekly, 27; preferred weekly payment of wages, 28. Belonged to labor organizations, 20. Had life insurance, 15; total amount, \$23,500; had weekly benefits, 5; total amount \$21. Owned homes, 9; homes mortgaged, 4; aggregate amount, \$1,150; annual interest, 9 per cent. Highest daily wages, \$3; lowest, \$2.25. Highest monthly family income, \$190; lowest, \$25. Highest monthly family expense, \$152; lowest, \$30. Average number rooms rented, $3\frac{1}{16}$; monthly rent per room, \$2.76. Average price of fresh meat per pound, 10; coal per ton, \$3.25.

	No. reported.	Totals.	Averages.	Percentages.
Persons in families.....	28	159	$5\frac{5}{8}$	.....
Persons employed.....	27	27	1	17.00 of all persons reported.
Children at school.....	19	45	$2\frac{7}{16}$	46.00 of 98, total number reported
Men's daily wages.....	27	\$69 20	\$2 56	77.41 were below the average.
Sons' daily wages.....	4	6 50	1 62	75.00 " "
Days employed, men.....	27	4,824	178	75.42 of working days.
sons.....	4	828	207	87.71 " "
Men's earnings.....	27	\$12,152 25	\$450 08	90.30 of gross earnings.
Sons' earnings.....	4	4,305 00	326 25	9.70 " "
Incomes from other sources.....	2	909 00	454 00	6.33 of gross incomes.
Aggregate incomes and earnings.....	28	14,366 25	513 08	10.72 above gross expenses.
Daily income per family.....	28	.....	1 86	42.86 were below the average.
Income per person.....	159	.....	90 35	.....
Daily income per person.....	159	.....	0 33	.....
FAMILY EXPENSES.				
Groceries.....	28	\$4,314 60	\$154 09	33.26 of gross expenses.
Fresh meat.....	28	1,332 45	47 58	10 27 " "
Clothing.....	28	2,326 50	83 09	17.93 " "
Fuel.....	24	518 58	21 61	3.99 " "
Rent.....	16	1,219 50	76 22	9.38 " "
Sickness.....	28	897 75	32 06	6.95 " "
Interest, insurance, taxes.....	18	330 30	18 35	2.54 " "
Education.....	28	493 65	17 63	3.80 " "
Society dues.....	21	135 00	6 43	1.04 " "
Boarding.....	1	22 50	22 50	0.18 " "
Sundries.....	26	1,383 75	53 22	10.66 " "
Aggregate family expenses.....	28	12,974 58	463 38	90.31 of gross income.
Daily expenses per family.....	28	.....	1 68	64.28 were below the average.
Expenses per person.....	159	.....	81 60	.....
Daily expenses per person.....	159	.....	0 29 $\frac{3}{8}$	.....
Incomes above expenses.....	20	2,362 77	118 14	16.45 of gross income.
Expenses above incomes.....	8	971 10	121 40	6.76 more than gross income.
Net surplus.....	28	1,391 67	49 70	9.69 of gross incomes.

Below the average: 12 family incomes, 18 family expenses, 21 father's daily wages.

PAINTERS.

KANSAS CITY.

Summary of 15 monthly reports for June, July, August, September, and October, 1888. Number reporting each month, average family membership, days worked, and wages paid, were as follows: 2 for June, $5\frac{1}{2}$ persons to family, worked an average of 24 days, at an average of \$2.28 per day; 2 for July, $4\frac{1}{2}$ to family, worked an average of $23\frac{1}{2}$ days, at \$2.13; 3 for August, $5\frac{1}{2}$ to family, worked an average of 26 days, at \$2.75; 3 for September, $5\frac{1}{2}$ to family, worked an average of $25\frac{1}{2}$ days, at \$2.42; 5 for October, $5\frac{2}{3}$ to family, worked an average of 26 days, at \$2.30.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	15	79	$5\frac{3}{10}$	.....
Persons employed.....	15	15	1	19.00 of all persons reported.
Children at school.....	6	12	2	24.00 of 49, total number reported
Men's daily wages.....	15	\$35 00	\$2 33	53.00 were below the average.
Days employed, men.....	15	1,890	126	95.45 of working days.
Men's earnings.....	15	\$4,415 00	\$294 33	100.00 of gross earnings.
Aggregate incomes and earnings.....	15	4,415 00	294 33	13.05 above gross expenses.
Daily income per family.....	15	.....	1 $92\frac{1}{2}$	60.00 were below the average.
Income per person.....	79	.....	55.88	.....
Daily income per person.....	79	.....	$36\frac{1}{2}$	.....
FAMILY EXPENSES.				
Groceries.....	15	\$1,170 00	\$78 00	30.02 of gross expenses.
Fresh meat.....	15	321 25	21 52	8.24 " "
Clothing.....	15	692 50	46 17	17.77 " "
Fuel.....	14	277 50	19 82	7.12 " "
Rent.....	15	767 50	51 17	19.69 " "
Sickness.....	14	145 00	10 36	3.74 " "
Interest, insurance, taxes.....	9	65 00	7 26	1.66 " "
Education.....	13	146 25	11 25	3.75 " "
Society dues.....	7	27 50	3 93	0.70 " "
Sundries.....	15	285 00	19 00	7.31 " "
Aggregate family expenses.....	15	3,897 50	259 83	88.28 of gross income.
Daily expenses per family.....	15	.....	1 70	66.00 were below the average.
Expenses per person.....	79	.....	49 33	.....
Daily expenses per person.....	79	.....	$32\frac{1}{2}$	.....
Incomes above expenses.....	13	535 00	41 15	12.11 of gross income.
Expenses above incomes.....	2	17 50	8 75	0.39 more than gross income.
Net surplus.....	15	517 50	34 50	11.72 of gross incomes.

Below the average: 9 family incomes, 10 family expenses, 8 father's daily wages.

PRINTERS.

KANSAS CITY.

Summary of 33 monthly reports for 9 months from January to October, 1888, inclusive. (August omitted.) Number reported each month, average family membership, days worked, and wages per day, were as follows: Four for January, $5\frac{1}{2}$ to family, worked an average of 25 days at \$2.12; 4 for February, 5 to family, worked 25 days each at an average of \$2.12 per day; 4 for March, $5\frac{1}{2}$ to family, worked an average of $26\frac{1}{2}$ days at \$2.12; 4 for April, $5\frac{1}{2}$ to family, worked an average of $25\frac{1}{2}$ days at \$2.12; 3 for May, 5 to family, worked an average of $25\frac{2}{3}$ days at \$2.17; 4 for June, 5 to family, worked an average of $25\frac{2}{3}$ days at \$2.19; 2 for July, 5 to family, worked 26 days each at an average daily wage of \$2.25; 3 for September, 5 to family, worked an average of $25\frac{1}{2}$ days at \$2.45; and 5 for October, $4\frac{1}{2}$ to family, worked an average of $26\frac{2}{3}$ days at \$2.35. Parents, 66; sons, 57; daughters, 29; other persons, 15. Native-born adults, 65. Average age of employed: men, $34\frac{1}{2}$. Average number of hours employed daily: men, 10. Paid weekly, 33; preferred weekly payment of wages, 33. Belonged to labor organizations, 5. Had life insurance, 18; total amount, \$28,000; had weekly benefits, 21; total amount, \$89. Owned homes, 7; homes mortgaged, 2; aggregate amount, \$750; annual interest, $8\frac{1}{2}$ per cent. Had personal property mortgaged, 1; monthly interest, 11 per cent. Highest daily wages, \$2.75; lowest \$2. Highest monthly family income, \$119.50; lowest, \$48. Highest monthly family expense, \$121.50; lowest, \$27. Average number of rooms rented, $3\frac{2}{3}$; monthly rent per room, \$3.40. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	33	167	$5\frac{2}{3}$	.....
Persons employed.....	33	33	1	19.00 of all persons reported.
Children at school.....	14	21	$1\frac{1}{2}$	32.00 of 101, total number reported
Men's daily wages.....	33	\$72 85	\$2 21	57.00 were below the average.
Days employed, men.....	33	7,632	231 $\frac{1}{2}$	98.83 of working days.
Men's earnings.....	33	\$16,853 85	\$510 72	100.00 of gross earnings.
Incomes from other sources.....	5	2,214 00	442 80	11.60 of gross income.
Aggregate incomes and earnings.....	33	19,076 85	581 11	15.35 above gross expenses.
Daily income per family.....	33	.....	2 12	66.00 were below the average.
Income per person.....	167	.....	114 23	.....
Daily income per person.....	167	.....	$41\frac{1}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	33	\$4,779 00	\$144 82	28.90 of gross expenses.
Fresh meat.....	33	1,248 75	37 84	7.56 " "
Clothing.....	33	2,466 00	74 73	14.92 " "
Fuel.....	22	1,215 45	55 24	7.35 " "
Rent.....	27	3,064 50	113 50	18.54 " "
Sickness.....	32	819 00	25 59	4.96 " "
Interest, insurance, taxes.....	17	236 70	13 92	1.44 " "
Education.....	32	661 50	20 64	4.00 " "
Society dues.....	15	164 25	10 95	1.00 " "
Boarding.....	1	13 50	13 50	0.10 " "
Sundries.....	33	1,867 50	56 59	11.23 " "
Aggregate family expenses.....	33	16,537 95	501 15	86.70 of gross income.
Daily expenses per family.....	33	.....	1 82	73.00 were below the average.
Expenses per person.....	167	.....	99 03	.....
Daily expenses per person.....	274	.....	$26\frac{8}{10}$	.....
Incomes above expenses.....	26	2,842 65	109 33	14.90 of gross income.
Expenses above incomes.....	4	303 75	75 93	1.60 more than gross income.
Net surplus.....	33	2,538 90	76 93	13.30 of gross incomes.

Below the average: 22 family incomes, 24 family expenses, 19 father's daily wages.

SWITCHMEN.

KANSAS CITY.

Summary of 9 monthly reports for 4 months, from June to September, 1888, inclusive. Number reported each month, average family membership, days worked, and wages per day, as follows: 3 for June, 4 $\frac{1}{2}$ to family, worked an average of 29 $\frac{3}{4}$ days at \$2.17; 1 for July, 4 in family, worked 30 days at \$2; 2 for August, 5 $\frac{1}{2}$ to family, worked 31 days each at an average of \$2.27 $\frac{1}{2}$; 3 for September 5 to family, worked an average of 29 $\frac{1}{2}$ days at \$2.25. Parents, 18; sons, 14; daughters, 11. Native-born adults, 16; foreign-born adults, 1. Average age of employed, men, 33. Average number of hours employed daily, men, 10 $\frac{2}{5}$. Paid monthly, 9; had wages withheld, 9—16 days each; preferred weekly payment of wages, 9; belonged to labor organizations, 9. Had life insurance, 7; total amount, \$11,000; had weekly benefits, 4; total amount, \$55. Owned homes, 1; homes mortgaged, 1; aggregate amount, \$450; annual interest, 8 per cent. Highest daily wages, \$2.30; lowest, \$2. Highest monthly family income, \$71.30; lowest, \$60. Highest monthly family expense, \$66; lowest, \$41.85. Average number rooms rented, 2 $\frac{7}{8}$; monthly rent per room, \$3.28. Average price of fresh meat per pound, 10 cents; coal per ton, \$4.25.

	No. re- ported.	Totals.	Averages.	Percentages.
Persons in families.....	9	43	4 $\frac{7}{8}$	.....
Persons employed.....	9	9	1	20.93 of all persons reported.
Children at school.....	2	2	1	8.00 of 25, total number reported
Men's daily wages.....	9	\$19 80	\$2 20	22.22 were below the average.
Days employed, men.....	9	1076	119	14.42 more than working days.
Men's earnings.....	9	\$2,367 20	\$263 02	100.00 of gross earnings.
Aggregate incomes and earnings.....	9	2,367 20	263 02	28.01 above gross expenses.
Daily income per family.....	9	.....	2 15	44.44 were below the average.
Income per person.....	43	.....	55 05	.....
Daily income per person.....	43	.....	45 $\frac{1}{10}$	.....
FAMILY EXPENSES.				
Groceries.....	9	\$541 00	\$60 11	29.01 of gross expenses.
Fresh meat.....	9	148 40	16 48	7.96 " "
Clothing.....	9	346 40	38 48	18.58 " "
Fuel.....	8	78 00	9 75	4.18 " "
Rent.....	8	302 00	37 75	16.19 " "
Sickness.....	9	120 00	13 33	6.44 " "
Interest, insurance, taxes.....	8	44 00	5 50	2.36 " "
Education.....	9	94 00	11 75	5.04 " "
Society dues.....	9	53 00	5 88	2.84 " "
Sundries.....	9	138 00	15 33	7.40 " "
Aggregate family expenses.....	9	1,864 80	207 20	78.77 of gross income.
Daily expenses per family.....	9	.....	1 69	55.55 were below the average.
Expenses per person.....	43	.....	43 35	.....
Daily expenses per person.....	43	.....	35 $\frac{1}{2}$	.....
Incomes above expenses.....	9	502 40	55 82	21.22 of gross income.
Net surplus.....	9	502 40	55 82	21.22 of gross incomes.

Below the average: 4 family incomes, 5 family expenses, 2 father's daily wages.

PART 8.

RAILROADS.

Of the 8,799 miles of road operated in the State on December 31, 1888, as reported by the Railroad Commissioners, we have received reports representing 7,974 miles; but as our blanks only called for reports covering the year ending June 30, 1888—a date six months earlier, and then only for roads which had been in operation for the full year—it follows that our returns are practically complete, as there were 545 miles of road built in the State during the year 1888. In detail: the Atchison, Topeka & Santa Fé operates 2,545 miles; the Missouri Pacific, 2,028 miles; the Chicago, Kansas & Nebraska (Rock Island), 1,106 miles; the Union Pacific, 993 miles; the St. Louis & San Francisco, 427 miles; the Kansas City, Fort Scott & Memphis, 280 miles; and the rest is made up of shorter lines. A detailed table will be found further along in this chapter. The average number of employés, as reported by these several roads, aggregates 19,241; to whom was paid in the form of wages during the year the sum of \$10,964,247.42, an average to each of 569.81. To the 19,241 employés whose wages are reported may be added 173, reported by the St. Louis & San Francisco road under the head of "Other employés," whose wages are not stated, thus swelling the regular force to 19,414. Nothing but the operating force is included in the above; graders and construction gangs, engaged in building new roads, are not given. In making our estimates based upon the daily and monthly average wages paid as reported, we have allowed twenty-six working days to the month. As the average number of men employed in each department is given, and the average daily or monthly wages of each class, we have assumed that these men worked six out of the seven days of each week, or that at least this average number reported did so, allowing one day's rest out of seven. This estimate cannot be far out of the way, and the consequent deductions practically correct. In figuring the yearly average earnings at \$569.81, we have included all classes, from the superintendent, receiving \$4,000 per year, to the section hand, receiving but \$1.10 per day; but an examination of the tables will show that out of the 19,241 employés whose wages are given, 5,243 were section hands, whose average daily wages were only \$1.18, and that in all over 50 per cent. of the entire number received less than \$2 per day. Detailed tables are submitted, in which these reports are fully analyzed. The tables immediately following are compiled separately—one table being devoted to each report.

RAILROADS.

ATCHISON, TOPEKA & SANTA FÉ RAILROAD.

Occupation.	No. employed..	Av. hours em- ployed daily,	Average daily wages.....	Av. monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Superintendents, div. or gen.	4			\$209 40	\$2,512 80	\$10,051 20
Clerks.....	387			57 02	684 24	254,800 88
Train dispatchers.....	30			109 12	1,309 44	39,283 20
Operators.....	88			47 40	568 80	50,064 40
Station agents.....	173			50 10	601 20	104,007 60
OTHER EMPLOYÉS.						
Master and asst. mas. mechs.,		*	\$4 85	126 10	1,513 20	16,645 20
Locomotive engineers.....	11		4 10	106 60	1,279 20	337,708 80
Passenger conductors.....	264	†	2 21	57 46	689 52	135,823 68
Freight conductors.....	284	†	3 04	79 04	948 48	185,260 56
Brakemen.....	172	8	2 60	67 60	811 20	149,260 80
Car builders.....	184		1 64	42 64	511 68	156,062 40
Carpenters.....	305	8	2 23	57 98	695 76	104,364 00
Watchmen.....	150	9½	2 42	62 92	755 04	184,229 76
Blacksmiths.....	244	9½	2 75	71 50	858 00	45,474 00
Section foremen.....	53	9½	2 46	63 96	767 52	218,510 72
Machinists in shop.....	286	9½	1 51	39 26	471 12	19,315 92
Section hands.....	294	10	1 76	45 76	549 12	161,441 28
Flagmen.....	1,127	10	1 14	29 64	355 68	400,831 36
Telegraph operators.....	13	9	2 25	58 50	702 00	9,126 00
Laborers.....	535	10	1 56	40 56	486 72	260,395 20
Flagmen, switch-tenders and gate-keepers.....	233	10	2 15	55 90	670 80	156,296 40
Other employés.....	1,433	10	2 59	67 34	808 08	1,147,978 64
Totals.....	6,211					\$4,100,952 00
Average paid office employés. " " all employés.....	682 5,529 6,211	52 20 2 10 2 11	\$57 33 54 74 55 02	\$687 97 65 85 660 27		

Miles of road in this State..... 1,538.60
 Average number of employés in the State from June 30, 1887, to July 1, 1888, 6,211
 Total number of employés in the State June 30, 1888..... 11,314
 Accidents during the year: Passengers killed, 1; injured, 62. Employés killed, 22;
 injured, 842. Others, killed, 18; injured, 55.

CHICAGO, KANSAS & WESTERN RAILROAD.

Occupation.	No. employed..	Av. hours em- ployed daily,	Average daily wages.....	Av. monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Clerks.....	8			\$46 00	\$552 00	\$4,416 00
Operators.....	20			43 80	526 60	10,512 00
Station agents.....	52			47 70	572 40	29,764 80
OTHER EMPLOYÉS.						
Locomotive engineers.....	19	†	\$4 15	107 90	1,294 80	24,601 20
Locomotive firemen.....	13	†	2 47	62 22	770 64	10,018 32
Freight conductors, }	22	8	2 69	69 94	839 28	18,464 16
Brakemen.....	28	8	1 60	41 60	499 20	13,977 60
Carpenters.....	5	9½	1 97	51 22	614 64	3,073 20
Blacksmiths.....	1	9½	2 00	52 00	624 00	624 00
Machinists in shop.....	6	9½	2 13	55 38	664 56	3,987 36
Watchmen.....	12	12	1 48	38 48	461 76	5,541 12
Section foremen.....	97	10	1 62	42 12	505 44	49,027 68
Section hands.....	272	10	1 15	29 90	358 80	97,593 60
Laborers.....	21	9	1 37	35 62	427 44	8,976 24
Flagmen, switch and gate tend'rs,	2	10	1 42	36 92	443 04	886 08
Other employés.....	6	10	2 68	69 68	836 16	5,016 96
Totals.....	584					\$286,480 32
Average paid office employés. " " all employés.....	80 504 584		\$1 79 1 54 1 57	\$46 45 39 98 40 88	\$558 66 479 73 490 55	

Miles of road in this State..... 903.16
 Average number of employés in the State, June 30, 1887, to July 1, 1888..... 584
 Total number of employés in the State June 30, 1888..... 1,322
 Accidents during the year: Passengers killed, none; injured, 2. Employés killed,
 1; injured, 28. Others, killed, 1; injured, 2.

* Master and assistant master mechanics are paid by the month, consequently
 have no actual working hours other than the ten hours worked by their men; but
 they are subject to call at any time for extra labor without extra pay.
 † Locomotive engineers and firemen are paid on a mileage basis, and no record
 is kept of the actual number of hours worked by them each day.

RAILROADS—CONTINUED.

LEAVENWORTH, TOPEKA & SOUTHWESTERN RAILWAY.						MANHATTAN, ALMA & BURLINGAME RAILWAY.							
Occupation.	No. employed.....	Average hours employed daily.	Average daily wages.....	Average monthly earnings.....	Total yearly earnings of each class.	Occupation.	No. employed.....	Average hours employed daily..	Average daily wages.....	Average monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.	
OFFICE EMPLOYÉS.						OFFICE EMPLOYÉS.							
Clerks.....	3	.....	.....	\$51 66	\$1,559 76	Station agents.....	6	.....	.....	\$37 50	\$450 00	\$2,700 00
Operators.....	1	.....	.....	60 00	720 00	OTHER EMPLOYÉS.						
Station agents.....	5	.....	.....	42 00	504 00	Locomotive engineers.....	1	†	\$3 97	103 22	1,238 64	1,238 64
OTHER EMPLOYÉS.						Locomotive firemen.....	1	†	2 04	53 04	636 48	636 48	
Locomotive engineers.....	2	*	\$3 50	91 00	1,092 00	Passenger and freight conductor,	1	8	2 94	76 43	917 28	917 28	
Locomotive firemen.....	2	*	3 32	86 32	1,035 84	Brakemen.....	2	8	1 76	45 76	549 12	1,098 24	
Passenger conductors.....	1	8	2 83	73 58	882 96	Carpenters.....	1	9½	2 70	70 20	842 40	842 40	
Freight conductors.....	3	8	1 69	43 94	527 28	Section foremen.....	7	10	1 64	42 64	511 68	3,581 76	
Brakemen.....	3	8	2 29	53 54	714 48	Section hands.....	17	10	1 23	31 98	383 76	6,523 92	
Carpenters.....	3	9½	1 65	42 90	514 80	Laborers.....	3	9	1 71	44 46	533 52	1,600 56	
Section foremen.....	8	10	1 22	31 72	380 64	Other employes.....	4	10	1 31	34 06	408 72	1,634 88	
Section hands.....	26	10	1 54	40 04	480 48	Total.....	43	.....	.....	.....	.....	\$20,774 16
Laborers.....	3	9	1 32	34 32	411 84	Average paid office employes.....	6	.....	\$2 44	\$37 50	\$450 00	.....
Flagmen, switch-tenders, and gate-keepers.....	5	10	1 80	46 80	561 60	“ other employes.....	37	.....	1 56	40 65	488 49	.....
Other employes.....	8	10	.....	.....	.....	“ all employes.....	43	.....	1 54	40 26	483 12	.....
Total.....	71	\$36,271 84	Miles of road in this State.....							56.62
Average paid office employes.....	9	\$1 81	\$47 22	\$566 64	Average number of employes in the State from June 30, 1887, to July 1, 1888,.....							43
“ other employes.....	62	1 61	41 90	502 77	Total number of employes in the State June 30, 1888.....							103
“ all employes.....	71	1 63	42 57	510 87	Accidents during the year: None.						
Miles of road in this State.....						† Locomotive engineers and firemen are paid by the month, and no record is kept of the actual number of hours worked by them each day.						
Average number of employes in the State from June 30, 1887, to July 1, 1888... 70					
Total number of employes in the State June 30, 1888.....					
Accidents during the year: 7 employes injured.					
* Locomotive engineers and firemen are paid wholly upon a mileage basis, and no record is kept of the actual number of hours worked by them each day.					

RAILROADS—CONTINUED.

ATCHISON & NEBRASKA RAILROAD.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Av. hours em- ployed daily...</i>	<i>Average daily wages.....</i>	<i>Average month- ly earnings....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	11	.....	.....	\$61 60	\$739 20	\$8,131 20
Operators.....	3	.....	.....	51 00	612 00	1,836 00
Station agents.....	6	.....	.....	55 83	669 96	4,019 76
OTHER EMPLOYÉS.						
Master and assistant master me- chanic (foreman).....	1	10	.....	100 00	1,200 00	1,200 00
Locomotive engineers.....	4	10	\$3 25	84 50	1,014 00	4,056 00
Locomotive firemen.....	4	10	2 00	52 00	624 00	2,496 00
Passenger conductors.....	4	10	3 25	84 50	1,014 00	4,056 00
Freight conductor.....	1	10	2 10	54 60	655 20	655 20
Brakemen.....	6	10	1 60	41 60	499 20	2,995 20
Car repairers.....	2	10	1 43	37 18	446 16	892 32
Carpenters (incl. bridge gang)...	4	10	2 00	52 00	624 00	2,496 00
Blacksmith.....	1	10	2 75	71 50	858 00	858 00
Machinist in shop.....	1	10	1 74	45 24	542 88	542 88
Watchmen.....	2	10	1 40	36 40	436 80	873 60
Section foremen.....	8	10	4 53	45 63	517 56	4,380 48
Section hands.....	29	10	1 20	31 20	374 40	10,857 60
Laborers, (ex. gangs, shops, etc.)	19	10	1 35	35 10	421 20	8,002 80
Flagmen, switch-tenders, and gate-keepers.....	4	11	.....	62 14	745 68	2,982 72
Other employés, helpers at sta- tions, wipers, hostlers, etc.....	14	11	1 60	41 60	499 20	6,988 80
Totals.....	124	.....	.....	.....	.....	\$68,320 56
Average paid office employés.....	20	.....	\$2 24	\$58 29	\$699 34	.....
" other employés.....	104	.....	1 67	43 53	522 43	.....
" all employés.....	124	.....	1 76	45 91	550 97	.....

Miles of road in this State..... 37.24
 Average number employés in the State from June 30, 1887, to July 1, 1888..... 135
 Total number employés in the State June 30, 1888..... 132
 Accidents during the year: Passengers, killed, 2; injured, 4. Employés, injured, 3.

BEAVER VALLEY RAILROAD.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Av. hours em- ployed daily...</i>	<i>Average daily wages.....</i>	<i>Average month- ly earnings....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Operator.....	1	.....	.....	\$40 00	\$480 00	\$480 00
Station agents.....	5	.....	.....	46 00	552 00	2,760 00
OTHER EMPLOYÉS.						
Locomotive engineers.....	4	10	\$4 95	128 70	1,544 40	6,177 60
Locomotive firemen.....	4	10	2 97	77 22	926 64	3,706 56
Passenger conductors.....	2	10	3 00	78 00	936 00	1,872 00
Freight conductors.....	2	10	2 30	59 80	717 60	1,435 20
Brakemen.....	6	10	1 80	46 80	561 60	3,369 60
Carpenters (inc. bridge gang)....	8	10	2 00	52 00	624 00	4,992 00
Section foremen.....	5	10	.....	45 00	540 00	2,700 00
Section hands.....	11	10	1 10	28 60	343 20	3,773 20
Other employés, helpers at sta- tions, coal men, etc.....	3	10	1 75	45 50	546 00	1,638 00
Totals.....	51	.....	.....	.....	.....	\$32,906 16
Average paid office employés.....	6	.....	\$1 73	\$45 00	\$540 00	.....
" other employés.....	45	.....	2 12	55 12	661 47	.....
" all employés.....	51	.....	2 06	53 76	645 23	.....

Miles of road in this State..... 35.63
 Average number employés in the State from June 30, 1887, to July 1, 1888..... 45
 Total number employés in the State, June 30, 1888..... 65
 Accidents during the year: Employés, injured, 3.

RAILROADS—CONTINUED.

CHICAGO, NEBRASKA & KANSAS RAILROAD.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Average hours employed daily...</i>	<i>Average daily wages.....</i>	<i>Average monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
<i>OFFICE EMPLOYÉS.</i>						
Telegraph operators.....	2	.....	.....	\$50 00	\$600 00	\$1,200 00
Station agents.....	9	.....	.....	50 00	600 00	5,400 00
<i>OTHER EMPLOYÉS.</i>						
Locomotive engineers.....	4	.....	\$3 55	92 30	1,107 60	4,430 40
Locomotive firemen.....	4	.....	2 10	54 60	655 20	2,620 80
Passenger conductor.....	1	.....	2 90	75 40	904 80	904 80
Freight conductors.....	2	.....	2 09	54 34	652 08	1,304 16
Brakemen.....	5	.....	1 61	41 86	502 32	2,511 60
Car repairers.....	2	.....	1 83	47 58	570 96	1,141 92
Carpenters (including bridge gang).....	5	.....	1 93	50 18	602 16	3,010 80
Section foremen.....	21	.....	1 10	45 00	540 00	5,400 00
Section hands.....	5	.....	1 25	32 50	343 20	7,207 20
Other employés.....	.....	.....	.....	330 00	.....	1,950 00
Totals.....	70	.....	.....	.....	.....	\$37,081 68
<i>Average paid office employés.....</i>	<i>11</i>	<i>.....</i>	<i>\$1 92</i>	<i>\$50 00</i>	<i>\$600 00</i>	<i>.....</i>
<i>“ other employés.....</i>	<i>59</i>	<i>.....</i>	<i>1 65</i>	<i>43 05</i>	<i>516 64</i>	<i>.....</i>
<i>“ all employés.....</i>	<i>70</i>	<i>.....</i>	<i>1 70</i>	<i>44 14</i>	<i>529 73</i>	<i>.....</i>

Miles of road in this State.....

63 58

Average number employés in State from June 30, 1887, to July 1, 1888.....

70

Total number employés in State June 30, 1888.....

77

Accidents during the year: Employés injured.....

3

REPUBLICAN VALLEY, KANSAS & SOUTHWESTERN RAILROAD.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Average hours employed daily...</i>	<i>Average daily wages.....</i>	<i>Average monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
<i>OFFICE EMPLOYÉS.</i>						
Clerks.....	3	.....	.....	\$40 00	\$480 00	\$1,440 00
Telegraph operators.....	4	.....	.....	40 00	480 00	1,920 00
Station agents.....	3	.....	.....	47 00	564 00	4,512 00
<i>OTHER EMPLOYÉS.</i>						
Locomotive engineers.....	3	10	\$3 25	84 50	1,014 00	3,042 00
Locomotive firemen.....	3	10	2 20	57 20	686 40	2,059 20
Passenger conductors.....	2	10	3 00	78 00	936 00	1,872 00
Freight conductors.....	5	10	2 30	59 80	717 60	3,588 00
Brakemen.....	12	10	1 80	46 80	561 60	6,739 20
Car repairer.....	1	10	1 40	36 40	436 80	436 80
Carpenters (including bridge gang).....	5	10	2 00	52 00	624 00	3,120 00
Section foremen.....	9	10	.....	45 00	540 00	4,860 00
Section hands.....	20	10	1 10	28 60	343 20	6,864 00
Help at stations, coal men, etc.....	3	10	1 50	39 00	468 00	1,404 00
Totals.....	78	.....	.....	.....	.....	\$41,857 20
<i>Average paid office employés.....</i>	<i>15</i>	<i>.....</i>	<i>\$1 68</i>	<i>\$43 73</i>	<i>\$524 80</i>	<i>.....</i>
<i>“ other employés.....</i>	<i>63</i>	<i>.....</i>	<i>1 72</i>	<i>44 76</i>	<i>537 18</i>	<i>.....</i>
<i>“ all employés.....</i>	<i>78</i>	<i>.....</i>	<i>1 72</i>	<i>44 72</i>	<i>536 62</i>	<i>.....</i>

Miles of road in this State.....

69 73

Average number of employés in State from June 30, 1887, to July 1, 1888.....

65

Total number of employés in State July 30, 1888.....

85

RAILROADS—CONTINUED.

KANSAS CITY, FORT SCOTT & MEMPHIS RAILROAD.

Occupation.	No. employed..	Av. hours em- ployed daily..	Average daily wages	Av. monthly earnings.	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Clerks	7	.....	.....	\$47 00	\$564 00	\$3,948 00
Train dispatchers.....	7	.....	.....	110 00	1,320 00	9,120 00
Station agents.....	51	.....	.....	46 00	552 00	28,152 00
OTHER EMPLOYÉS.						
Master and asst. mas. mechanics,	1	8	\$3 83	99 58	1,194 96	1,194 96
Locomotive engineers.....	40	10	4 00	104 00	1,248 00	49,920 00
Locomotive firemen.....	42	10	2 25	58 50	1,202 00	29,484 00
Passenger conductors.....	6	9	3 33	86 58	1,038 96	6,233 76
Freight conductors.....	22	10	2 70	70 20	842 40	18,532 80
Brakemen.....	92	10	1 85	48 10	577 20	53,102 40
Car builders.....	8	10	2 25	58 50	702 00	5,616 00
Carpenters.....	60	10	2 28	59 28	711 36	42,681 60
Blacksmiths.....	2	10	2 50	65 00	780 00	1,560 00
Machinists.....	7	10	2 18	56 68	680 16	4,761 12
Watchmen.....	3	10	1 30	33 80	405 60	1,216 80
Section foreman.....	37	10	1 50	39 00	468 00	17,316 00
Section hands.....	277	9	1 10	28 60	343 20	95,066 40
Telegraph operators.....	5	10	1 90	49 40	592 80	2,964 00
Laborers.....	89	10	1 27	33 02	396 24	35,265 36
Flagmen switch-tenders and gate-keepers.....	1	12	1 25	32 50	390 00	390 00
Other employes.....	73	10	1 75	45 50	546 00	39,858 00
Totals.....	580	.....	.....	.....	.....	\$446,503 20
Average paid office employes.....	65	.....	\$2 04	\$53 00	\$636 00	.....
“ other employes.....	765	.....	1 69	44 13	529 62	.....
“ all employes.....	830	.....	1 72	44 83	537 95	.....

Miles of road in this State..... 256 94

Total number of employes in the State July 1, 1887..... 830

Accidents during the year: Employes, killed, 2; injured, 17. Others, killed, 3; injured, 2.

KANSAS CITY, CLINTON & SPRINGFIELD RAILROAD.

Occupation.	No. employed..	Av. hours em- ployed daily..	Average daily wages	Av. monthly earnings.	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Station agents.....	2	.....	.....	\$35 00	\$420 00	\$840 00
OTHER EMPLOYÉS.						
Section foremen.....	1	9½	\$1 50	39 00	468 00	468 00
Section hands.....	8	9½	1 10	28 60	343 20	2,745 60
Totals.....	11	.....	.....	.....	.....	\$4,053 60
Average paid office employes.....	2	.....	\$1 34	\$35 00	\$420 00	.....
“ other employes.....	9	.....	1 14	29 75	357 06	.....
“ all employes.....	11	.....	1 18	30 70	368 51	.....

Miles of road in this State..... 23

Total number of employes in the State July 1, 1888..... 11

Accidents during the year: Employes, injured, 1.

RAILROADS—CONTINUED.

MISSOURI PACIFIC RAILWAY, MAIN LINE.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily.</i>	<i>Average daily wages</i>	<i>Av. monthly earnings</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintend'ts, div. and ass't,	7	.....	.....	\$210 60	\$2,527 20	\$17,690 40
Clerks.....	70	.....	.....	32 82	393 84	27,968 80
Train dispatchers.....	12	.....	.....	53 40	640 80	7,689 60
Station agents.....	55	.....	.....	31 80	381 60	20,988 00
OTHER EMPLOYÉS.						
Master and ass't mas. mach'cs,	1	10	\$8 33	216 58	2,598 96	2,598 96
Locomotive engineers.....	44	10	3 60	93 60	1,123 20	49,420 80
Locomotive firemen.....	50	10	2 02	52 52	630 24	31,512 00
Passenger conductors.....	20	10	2 76	71 76	861 12	17,222 40
Freight conductors.....	42	10	2 71	70 46	845 52	35,511 84
Brakemen.....	115	10	1 92	49 92	599 04	68,889 60
Car builders.....	15	10	2 05	53 30	639 60	9,594 00
Carpenters.....	19	10	2 24	58 24	698 88	13,278 72
Blacksmiths.....	2	10	2 29	59 54	714 40	1,428 80
Machinists in shop.....	2	12	2 77	72 02	864 24	1,728 48
Watchmen.....	7	12	1 20	31 20	374 40	2,620 80
Section foremen.....	83	10	1 48	38 48	461 76	38,326 08
Section hands.....	516	10	1 16	30 16	361 92	197,608 32
Telegraph operators.....	100	12	96	24 96	299 52	29,952 00
Laborers.....	15	12	1 28	35 28	359 56	5,390 40
Flagmen, switch-tenders and gate-keepers.....	44	10	1 83	47 58	570 96	25,122 24
Other employes.....	126	10	1 19	30 94	371 38	46,793 88
Totals.....	1,375	.....	.....	.....	.....	\$651,536 12
Average paid office employes..	144	.....	\$1 65	\$42 79	\$513 43	.....
" " all other employes.....	1,231	.....	1 50	39 10	469 21	.....
" "	1,375	.....	1 52	39 40	473 84	.....

Miles of road in this State (operated)..... 370

Average number of employes in the State, June 30, 1887, to July 1, 1888..... 1,375

Total number of employes in the State, June 30, 1888..... 1,375

Accidents during the year: Passengers, injured, 4. Employes, killed, 3; injured, 6.

(Others, injured, 1.

CENTRAL BRANCH UNION PACIFIC RAILROAD.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily.</i>	<i>Average daily wages</i>	<i>Av. monthly earnings</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintendents, div. or gen...	2	.....	.....	\$225 00	\$2,700 00	\$5,400 00
Clerks.....	69	.....	.....	18 30	219 60	15,152 40
Train dispatchers and tele- graph operators.....	82	.....	.....	18 00	216 00	17,712 00
Station agents.....	71	.....	.....	27 60	331 20	23,515 20
OTHER EMPLOYÉS.						
Master and ass't mas. mach'cs,	1	.....	\$5 83	151 58	1,818 96	1,818 96
Locomotive engineers.....	40	.....	2 54	66 04	792 48	31,699 20
Locomotive firemen.....	41	.....	1 97	51 22	614 64	25,290 24
Passenger conductors.....	29	.....	2 72	70 72	848 64	24,610 56
Freight conductors.....	68	.....	1 49	38 74	464 88	31,611 84
Brakemen.....	53	.....	2 20	57 20	686 40	36,379 20
Carpenters.....	83	.....	1 79	46 51	558 48	46,353 84
Machinists in shop.....	41	.....	2 46	63 96	767 52	31,468 32
Section foremen.....	64	.....	1 58	41 08	492 96	31,549 44
Section hands.....	251	.....	1 14	29 64	355 68	89,275 68
Flagmen, switchmen, gate- keepers, and watchmen.....	48	.....	0 82	21 82	265 84	12,760 32
Other employes and laborers,	206	.....	0 77	20 02	240 24	49,489 44
Totals.....	1,149	.....	.....	.....	.....	\$473,996 64
Average paid office employes..	224	.....	\$0 87	\$22 61	\$271 34	.....
" " all other employes.....	925	.....	1 42	37 04	444 54	.....
" "	1,149	.....	1 32	34 40	412 53	.....

Miles of road in this State..... 388

Average number of employes in the State, June 30, 1887, to July 1, 1888..... 1,149

Total number of employes in the State, June 30, 1888..... 1,149

Accidents during the year: Employes, killed, 3; injured, 5. Others, injured, 5.

NOTE.—Dispatchers, operators, station agents, flagmen and other employes are probably pro-rated.

RAILROADS—CONTINUED.

COUNCIL GROVE, OSAGE CITY & OTTAWA RAILWAY.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Av. hours em- ployed daily...</i>	<i>Average daily earnings.....</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	11	\$3 56	92 56	\$7 40	\$88 80	\$976 80
Train dispatchers.....	8	2 04	53 04	15 90	190 80	1,526 40
Station agents.....	14	3 28	85 28	22 80	273 60	3,836 40
OTHER EMPLOYÉS.						
Locomotive engineers.....	7	10	1,110 72			7,775 04
Locomotive firemen.....	8	10	636 48			5,091 84
Passenger conductors.....	4	10	1,023 36			4,063 44
Freight conductors.....	8	10	874 88			6,839 04
Brakemen.....	13	10	927 04			9,731 52
Car builders.....	2	10	546 00			1,092 00
Carpenters.....	5	10	733 20			3,666 00
Section foremen.....	18	10	358 40			7,050 08
Section hands.....	108	10	352 56			38,076 48
Telegraph operators.....	21	12	249 60			5,241 60
Flagmen, switch-tenders and gate-keepers.....	5	10	243 36			1,216 80
Other employees.....	22	10	224 64			4,942 08
Totals.....	254					\$95,849 52
Average paid office employees.....	33	\$0 61	\$15 99		\$191 92	
“ other employees.....	221	1 30	33 92		405 02	
“ all employees.....	254	1 21	31 45		377 36	

Miles of road in this State..... 70
 Average number employees in the State from June 30, 1887, to July 1, 1888..... 254
 Total number of employees in the State June 30, 1888..... 254
 Accidents during the year: Employees, killed, 2; injured, 1.

NOTE.—In this report the salaries of clerks and train dispatchers, and the wages of brakemen, telegraph operators, flagmen and other employees are evidently pro-rated.

DENVER, MEMPHIS & ATLANTIC RAILWAY.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Av. hours em- ployed daily...</i>	<i>Average daily wages.....</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	37			\$21 84	\$262 08	\$9,696 96
Train dispatchers.....	5			\$4 90	\$58 80	\$3,294 00
Station agents.....	54			30 30	363 60	19,654 40
OTHER EMPLOYÉS.						
Locomotive engineers.....	10	10	\$4 04	105 04	1,260 48	12,604 80
Locomotive firemen.....	10	10	2 10	54 60	655 20	6,552 00
Passenger conductors.....	9	10	1 22	31 72	380 64	3,425 76
Freight conductors.....	17	10	1 63	42 38	508 56	8,645 52
Brakemen.....	33	10	91	23 66	283 92	9,369 36
Car builders.....	1	10	1 85	48 10	577 20	577 20
Carpenters.....	13	10	2 21	57 46	689 52	13,100 88
Section foremen.....	08	10	1 52	39 52	474 24	32,248 32
Section hands.....	230	10	1 17	30 42	365 04	83,959 20
Telegraph operators.....	60	12	81	21 06	252 72	15,163 20
Laborers.....	10	12	1 54	40 04	480 48	4,804 80
Flagmen, switch-tenders, gate- keepers and watchmen.....	26	10	46	11 96	143 52	3,731 52
Other employees.....	70	10	1 09	28 34	340 08	23,805 60
Totals.....	659					\$241,613 52
Average paid office employees.....	96		\$1 09	\$28 32	\$339 85	
“ other employees.....	563		1 19	30 93	371 20	
“ all employees.....	659		1 17	30 55	366 63	

Miles of road in this State..... 411
 Average number of employees in the State from June 30, 1887, to July 1, 1888..... 659
 Total number employees in State June 30, 1888..... 659
 Accidents during the year: Passengers, injured, 1. Employees, killed, 3; injured, 3.

NOTE.—Probably the clerks, train dispatchers, conductors, brakemen, telegraph operators and flagmen are pro-rated.

RAILROADS—CONTINUED.

KANSAS & COLORADO RAILWAY.

<i>Occupation.</i>	<i>No. employed....</i>	<i>Av. hours em- ployed daily...</i>	<i>Av. daily wages.</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	10	.....	\$12 08	\$124 96	\$1,449 60	
Train dispatchers.....	11	.....	17 26	207 12	2,278 32	
Station agents.....	17	.....	28 22	338 64	5,756 88	
OTHER EMPLOYÉS.						
Locomotive engineers.....	8	10	\$4 10	106 60	1,279 20	10,233 60
Locomotive firemen.....	9	10	2 28	59 28	711 36	6,402 24
Passenger conductors.....	7	10	59 15	33 34	184 08	1,288 56
Freight conductors.....	12	10	1 30	33 80	405 60	4,867 20
Brakemen.....	33	10	59 15	34	184 08	6,074 64
Car builders.....	4	10	1 84	47 84	574 08	2,296 32
Carpenters.....	4	10	2 42	62 92	755 04	3,775 20
Section foremen.....	30	10	1 36	35 36	424 32	12,729 60
Section hands.....	137	10	1 09	28 34	340 08	46,590 96
Telegraph operators.....	25	12	99	25 74	308 88	7,722 00
Flagmen, switch-tenders, and gate-keepers.....	2	10	2 25	58 50	702 00	1,404 00
Other employees.....	29	10	94	24 44	293 28	8,505 12
Totals.....	339	.....	.....	.....	.....	\$121,374 24
Average paid office employees.....	38	.....	\$9 80	\$20 80	\$249 60	.....
“ all other employees.....	301	.....	1 19	30 97	371 72	.....
.....	339	.....	1 15	29 84	338 03	.....

Miles of road in this State..... 136
Average number of employees in the State from June 30, 1887, to July 1, 1888... 339
Total number of employees in the State June 30, 1888..... 339
Accidents during the year:
Passengers injured..... 1
Employees killed..... 1

NOTE.—Clerks, conductors, brakemen, telegraph operators, and “other employees,” probably pro-rated.

KANSAS, NEBRASKA & DAKOTA RAILWAY.

<i>Occupation.</i>	<i>No. employed....</i>	<i>Av. hours em- ployed daily...</i>	<i>Av. daily wages.</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	2	.....	.....	\$35 00	\$420 00	\$840 00
Train dispatchers.....	1	.....	.....	75 00	900 00	900 00
Station agents.....	14	.....	.....	29 10	349 20	4,882 20
OTHER EMPLOYÉS.						
Locomotive engineers.....	4	10	\$3 73	96 98	1,163 76	4,655 04
Locomotive firemen.....	4	10	2 11	54 86	658 32	2,633 28
Passenger conductors.....	2	10	3 00	78 00	936 00	1,872 00
Freight conductors.....	3	10	2 79	72 54	870 48	2,611 44
Brakemen.....	5	10	1 80	46 80	561 60	2,808 00
Carpenters.....	3	10	2 45	63 70	764 40	2,293 20
Section foremen.....	23	10	1 56	40 56	486 72	11,194 56
Section hands.....	67	10	1 13	29 38	352 56	23,621 52
Telegraph operators.....	21	12	54	14 04	168 48	3,538 08
Labors.....	2	12	1 75	45 50	546 00	1,092 00
Flagmen, switch-tenders, and gate-keepers.....	1	10	1 33	34 58	414 96	414 96
Other employees.....	11	10	1 47	38 22	458 64	5,045 04
Totals.....	163	.....	.....	.....	.....	\$68,407 92
Average paid office employees.....	17	.....	\$1 95	\$22 49	\$289 93	.....
“ all other employees.....	146	.....	1 35	35 26	423 14	.....
.....	163	.....	1 55	34 97	419 64	.....

Miles of road in this State..... 130
Average number of employees in the State from June 30, 1887, to July 1, 1888... 163
Total number of employees in the State June 30, 1888..... 163
Accidents during the year: One employee injured.

NOTE.—Telegraph operators probably pro-rated.

RAILROADS—CONTINUED.

KANSAS SOUTHWESTERN RAILWAY.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily,</i>	<i>Average daily wages.....</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	17	.....	.....	\$1 68	\$20 16	\$342 72
Station agents.....	1	.....	.....	24 65	295 56	295 56
OTHER EMPLOYÉS.						
Passenger conductors.....	1	10	\$2 33	60 58	726 96	726 96
Freight conductors.....	1	10	2 33	60 58	726 96	726 96
Brakemen.....	2	10	1 50	39 00	468 00	936 00
Section foremen.....	6	10	1 54	14 04	168 48	1,010 88
Section hands.....	6	10	1 09	28 34	340 08	2,040 48
Telegraph operators.....	1	12	79	20 54	246 48	246 48
Other employes.....	1	10	50	13 00	156 00	156 00
Totals.....	36	.....	.....	.....	.....	\$6,482 04
Average paid office employes.....	18	.....	\$9 11	\$2 95	\$35 46	.....
“ other employes.....	18	.....	1 04	27 05	324 65	.....
“ all employes.....	36	.....	58	15 00	180 06	.....

Miles of road in this State..... 25
 Average number employes in the State from June 30, 1887, to July 1, 1888..... 36
 Total number employes in the State June 30, 1888..... 36

NOTE.—While not so stated, the small sums paid clerks, section foremen, telegraph operators, “other employes,” and probably train-men, would indicate a pro-rate with connecting lines of the same system.

MISSOURI, KANSAS & TEXAS RAILWAY.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily,</i>	<i>Average daily wages.....</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintendents, div. or gen.....	2	.....	.....	\$220 83	\$2,649 96	\$5,299 92
Clerks.....	36	.....	.....	47 13	565 56	20,360 16
Train dispatchers.....	6	.....	.....	71 66	858 92	5,158 52
Station agents.....	29	.....	.....	32 40	388 80	11,275 20
OTHER EMPLOYÉS.						
Master and asst. mas. mech'cs.....	1	10	\$5 83	151 58	1,818 96	1,818 96
Locomotive engineers.....	43	10	3 70	96 20	1,154 40	49,689 20
Locomotive firemen.....	41	10	2 03	52 78	633 36	25,967 76
Passenger conductors.....	18	10	2 53	65 78	789 36	14,208 48
Freight conductors.....	35	10	2 82	73 32	879 84	30,794 40
Brakemen.....	73	10	1 93	50 15	602 16	43,957 68
Car builders.....	15	10	1 87	48 62	583 44	8,751 60
Carpenters.....	23	10	2 43	63 18	758 16	17,437 68
Blacksmiths.....	7	10	3 05	79 30	951 00	6,661 20
Machinists in shop.....	44	10	2 88	74 88	898 56	39,536 64
Watchmen.....	5	12	1 98	41 08	492 96	2,464 80
Section foremen.....	42	10	1 57	40 82	489 84	20,573 28
Section hands.....	110	10	1 13	29 38	352 56	38,781 60
Telegraph operators.....	44	12	1 09	28 34	340 08	14,963 52
Laborers.....	16	12	1 40	36 40	436 80	6,988 80
Flagmen, switch-tenders, and gate-keepers.....	43	10	1 13	29 38	352 56	15,160 08
Other employes.....	193	10	1 60	41 60	499 20	96,345 60
Totals.....	826	.....	.....	.....	.....	\$476,145 08
Average paid office employes.....	73	.....	\$1 84	\$48 05	\$576 63	.....
“ other employes.....	753	.....	1 84	48 03	576 43	.....
“ all employes.....	826	.....	1 84	48 03	576 44	.....

Miles of road in this State..... 237
 Average number of employes in the State from June 30, 1887, to July 1, 1888..... 827
 Total number of employes in the State June 30, 1888..... 827
 Accidents during year: Passengers, injured, 1. Employees, killed, 1; injured, 5.
 Others, injured, 1.

RAILROADS — CONTINUED.

BOOKS COUNTY RAILWAY.

SALINA, STERLING & EL PASO RAILWAY.

<i>Occupations.</i>	<i>No. employed.....</i>	<i>Average hours em- ployed daily.....</i>	<i>Average daily wages.....</i>	<i>Average monthly earnings.....</i>	<i>Average yearly earnings. of each class.</i>
OFFICE EMPLOYÉS.					
Clerk	1	.....	.....	\$10 00	\$120 00
Station agents.....	3	.....	.....	37 80	453 60
OTHER EMPLOYÉS.					
Passenger conductor.....	1	10	\$1 22	31 72	380 64
Freight conductor.....	1	10	2 00	52 00	624 00
Brakemen.....	5	10	69	17 94	215 28
Section foremen.....	3	10	1 08	28 08	336 96
Section hands.....	4	10	1 15	29 90	1,435 20
Telegraph operators.....	3	12	50	13 00	156 00
Other employees.....	3	10	55	14 30	171 60
Totals.....	24	.....	.....	.....	\$6,990 72
Average paid office employees.....	4	.....	\$1 18	\$30 85	370 20
“ other employees.....	20	.....	88	22 96	275 53
“ all employees.....	24	.....	93	24 27	291 28
Miles of road in this State.....					
Average number of employees in State from June 30, 1887 to July 1, 1888.....					
Total number of employees in State June 30, 1888.....					

NOTE.—Clerks, train men, telegraph operators and “other employees” probably pro-rated.

<i>Occupations.</i>	<i>No. employed.....</i>	<i>Average hours em- ployed daily.....</i>	<i>Average daily wages.....</i>	<i>Average monthly earnings.....</i>	<i>Average yearly earnings. of each class.</i>
OFFICE EMPLOYÉS.					
Clerks	17	.....	.....	\$3 39	\$691 56
Station agents.....	5	.....	.....	43 80	2,028 00
OTHER EMPLOYÉS.					
Section foremen.....	9	10	\$0 75	19 50	2,106 00
Section hands.....	13	10	1 10	28 60	4,461 60
Telegraph operators.....	5	12	74	19 24	1,154 00
Other employees.....	1	10	1 61	41 86	502 32
Totals.....	50	.....	.....	.....	\$11,543 48
Average paid office employees.....	22	.....	\$0 48	\$12 57	\$150 88
“ other employees.....	28	.....	94	24 47	293 71
“ all employees.....	50	.....	74	19 24	280 86
Miles of road in this State.....					
Average number of employees in State from June 30, 1887, to July 1, 1888.....					
Total number of employees in the State June 30, 1888.....					
Accidents during the year: Employees killed.....					

NOTE.—Clerks, section foremen and telegraph operators probably pro-rated.

NOTE.—Clerks, section foremen and telegraph operators probably pro-rated.

RAILROADS—CONTINUED.

ST. LOUIS & EMPORIA RAILWAY.

Occupation.	No. employed..	Av. hours em- ployed daily.	Average daily wages	Av. monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.				\$19 50	\$234 00	\$2,340 00
Station agents	10	.....	.....	.....	.....	.....
OTHER EMPLOYÉS.						
Locomotive engineers.....	5	10	\$3 81	\$99 06	\$1,188 72	\$5,943 60
Locomotive firemen.....	5	10	2 19	56 94	683 28	3,416 40
Passenger conductors.....	3	10	2 32	60 32	723 84	2,171 52
Freight conductors	4	10	2 09	54 34	652 08	2,608 32
Brakemen	5	10	1 55	40 30	483 60	2,418 00
Car builders.....	1	10	1 67	43 42	521 04	521 04
Carpenters.....	3	10	2 32	60 32	723 84	2,171 52
Section foremen.....	16	10	1 67	43 42	521 04	8,336 64
Section hands.....	68	10	1 13	29 38	352 56	23,974 08
Telegraph operators	9	12	67	17 42	209 04	1,881 36
Laborers.....	2	12	1 77	46 02	552 24	1,104 48
Other employes.....	5	10	1 21	31 46	377 52	1,887 60
Totals	136	.....	.....	.....	.....	\$58,774 56
Average paid office employes.....	10	.....	\$0 75	\$19 50	\$234 00	.....
“ other employes.....	126	.....	1 43	37 32	447 88	.....
“ all employes.....	136	.....	1 38	36 01	432 16	.....

Miles of road in this State..... 85
 Average number of employes in the State from June 30, 1887, to July 1, 1887..... 136
 Total number of employes in the State June 30, 1888..... 136
 Accidents: None.

NOTE.—Probably telegraph operators and station agents are pro-rated; and possibly to a limited extent, conductors and brakemen.

TOPEKA, SALINA & WESTERN RAILWAY.

Occupation.	No. employed..	Av. hours em- ployed daily.	Average daily wages	Av. monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Clerks	13	.....	.....	\$11 49	\$137 88	\$1,792 44
Train dispatchers.....	8	.....	.....	15 90	190 80	1,526 40
Station agents	12	.....	.....	38 70	464 40	5,572 80
OTHER EMPLOYÉS.						
Locomotive engineers.....	6	10	\$3 64	94 64	\$1,135 68	\$6,814 08
Locomotive firemen.....	7	10	2 07	53 82	645 84	4,520 88
Passenger conductors	4	10	80	20 80	249 60	998 40
Freight conductors.....	7	10	1 29	33 54	402 48	2,817 36
Brakemen	20	10	94	24 44	293 28	5,865 60
Carpenters.....	4	10	2 39	62 14	745 68	2,982 72
Section foremen.....	20	10	1 33	34 58	414 96	8,259 20
Section hands	126	10	1 22	31 72	380 64	47,360 64
Telegraph operators	18	12	83	21 58	258 96	4,661 28
Flagmen, switch-tenders and gate-keepers.....	5	10	78	20 28	243 36	1,216 80
Other employes.....	21	10	77	20 02	240 24	5,045 04
Totals	271	.....	.....	.....	.....	\$100,073 64
Average paid office employes.....	33	.....	\$0 86	\$22 45	\$269 44	.....
“ other employes.....	238	.....	1 23	31 92	283 11	.....
“ all employes.....	271	.....	1 18	30 77	369 28	.....

Miles of road in this State..... 71
 Average number of employes in the State from June 30, 1887, to July 1, 1888..... 271
 Total number of employes in the State June 30, 1888..... 271
 Accidents: None.

NOTE.—Clerks, telegraph operators, dispatchers, conductors, brakemen, flagmen and “other employes,” probably pro-rated.

RAILROADS—CONTINUED.

WICHITA & COLORADO RAILWAY.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily.</i>	<i>Av. wages daily.....</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	18	.....	\$5 90	.....	\$70 80	\$1,274 40
Station agents.....	8	.....	33 60	.....	403 20	3,225 60
OTHER EMPLOYÉS.						
Passenger conductors.....	2	10	\$3 00	78 60	936 00	1,872 00
Freight conductors.....	5	10	3 07	79 82	957 84	4,789 20
Brakemen.....	7	10	2 08	54 08	648 96	4,542 72
Section foremen.....	10	10	0 95	24 70	296 40	2,964 00
Section hands.....	16	10	1 10	28 60	343 20	5,491 20
Telegraph operators.....	8	12	0 87	22 62	271 44	2,171 52
Flagmen, switch-tenders, and gate-keepers.....	11	10	0 23	5 98	71 76	789 36
Other employees.....	10	10	1 33	34 58	414 96	4,149 60
Totals.....	95	.....	.....	.....	.....	\$31,269 60
Average paid office employees.....	26	.....	\$9 55	\$14 42	\$173 07	.....
“ other employees.....	69	.....	1 24	32 33	387 96	.....
“ all employees.....	95	.....	1 05	27 43	339 15	.....

Miles of road in this State..... 47

Average number employees in the State from June 30, 1887, to July 1, 1888..... 95

Total number employees in the State June 30, 1888..... 95

NOTE.—Clerks, section foremen, telegraph operators and flagmen probably pro-rated.

UNION PACIFIC RAILWAY—KANSAS DIVISION, MAIN LINE.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily.</i>	<i>Average daily wages.....</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintendents (div. or gen.).....	1	.....	.....	\$250 00	\$3,000 00	\$3,000 00
Clerks.....	41	.....	.....	60 40	724 80	29,716 80
Train dispatchers.....	4	.....	.....	121 25	1,455 00	5,820 00
Operators.....	2	.....	.....	.....	840 00	1,680 00
Station agents.....	68	.....	.....	53 95	617 40	44,023 20
OTHER EMPLOYÉS.						
Master and asst. mas. mech's.....	2	.....	.....	192 75	2,313 00	4,626 00
Locomotive engineers.....	96	*	\$3 43	89 18	1,070 16	102,735 36
Locomotive firemen.....	94	*	2 05	53 30	639 60	60,122 40
Passenger conductors.....	11	10	4 65	120 90	1,450 80	15,958 80
Freight conductors.....	30	+	3 30	85 80	1,029 60	30,888 00
Brakemen.....	64	+	2 20	57 20	686 40	43,029 60
Car builders.....	69	10	2 00	52 00	624 00	43,056 00
Carpenters.....	86	9 ¹	2 50	65 00	780 00	67,080 00
Blacksmiths.....	16	10	2 00	67 60	811 20	12,979 20
Machinists in shop.....	85	10	2 75	71 50	858 00	72,930 00
Section foremen.....	16	12	1 30	33 80	405 60	6,489 60
Section hands.....	69	10	1 70	44 20	530 40	36,597 60
Telegraph operators.....	306	10	1 25	32 50	390 00	115,340 00
Telegraph operators.....	42	12	1 60	41 60	499 20	20,966 40
Labors.....	95	10	1 45	37 70	452 40	42,978 00
Flagmen, switch-tenders and gate-keepers.....	9	9 ¹	2 15	55 90	670 80	6,037 20
Other employees.....	361	10	1 85	48 10	577 20	208,369 20
Totals.....	1,567	.....	.....	.....	.....	\$979,323 36
Average paid office employees.....	116	.....	\$2 32	\$69 51	\$726 20	.....
“ other employees.....	1,451	.....	1 39	41 49	547 95	.....
“ all employees.....	1,567	.....	2 00	52 08	624 97	.....

Miles of road in this State..... 482.3

Average number employees in the State from June 30, 1887, to July 1, 1888..... 1,557

Total number employees in the State June 30, 1888..... 1,560

Accidents during the year: Passengers, injured, 9; Employees, killed, 6; injured, 246; Others, killed, 3; injured, 25.

* Paid by trip. + No limit.

RAILROADS—CONTINUED.

JUNCTION CITY & FORT KEARNEY RAILWAY.

Occupation.	No. employed.....	Av. hours em- ployed daily...	Average daily wages.....	Av. monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Clerks.....	1	.....	.....	\$30 00	\$30 00	\$360 00
Station agents.....	13	.....	.....	48 45	581 40	7,558 20
OTHER EMPLOYÉS.						
Locomotive engineers.....	4	*	\$3 85	100 10	1,201 20	4,804 80
Locomotive firemen.....	4	*	2 25	58 56	702 72	2,810 88
Passenger conductors.....	1	10	3 66	95 16	1,141 92	1,141 92
Freight conductors.....	2	†	3 25	84 50	1,014 00	2,028 00
Brakemen.....	4	†	2 17	56 42	677 04	2,708 16
Section foremen.....	12	10	1 66	43 16	517 92	6,215 04
Section hands.....	31	10	1 25	32 50	390 00	12,090 00
Brakemen.....	3	10	1 33	34 58	414 96	1,244 88
Telegraph operators.....	1	12	1 25	32 50	390 00	390 00
Gate-keepers.....	12	10	1 50	39 00	468 00	5,616 00
Other employees.....	88	.....	.....	.....	.....	\$46,967 88
Totals.....	.....	.....	.....	.....	.....	.....
Average paid office employees.....	14	.....	\$1 81	\$47 13	\$568 58	.....
“ other employees.....	74	.....	1 65	43 97	527 69	.....
“ all employees.....	88	.....	1 71	44 47	533 72	.....

Miles of road in this State..... 87.8
 Average number of employees in the State from June 30, 1887, to July 1, 1888..... 87
 Total number of employees in the State June 30, 1888..... 89
 Accidents during the year: Employees, injured, 1. Others, injured, 1.

* Paid by trip. † No limit.

KANSAS CENTRAL RAILROAD.

Occupation.	No. employed.....	Av. hours em- ployed daily...	Average daily wages.....	Av. monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Clerks.....	8	.....	.....	\$55 00	\$560 00	\$5,280 00
Train dispatchers.....	1	.....	.....	85 00	1,020 00	1,020 00
Station agents.....	18	.....	.....	47 50	570 00	10,260 00
OTHER EMPLOYÉS.						
Master and assistant master mechanics.....	1	10	.....	125 00	1,500 00	1,500 00
Locomotive engineers.....	8	*	\$3 65	94 90	1,138 80	9,110 40
Locomotive firemen.....	8	*	2 17	56 42	677 04	5,426 32
Passenger conductors.....	2	10	3 25	84 50	1,014 00	2,028 00
Freight conductors.....	2	†	3 80	98 80	1,185 60	2,371 20
Brakemen.....	5	†	2 35	59 80	1,117 60	3,588 00
Car builders.....	3	10	2 25	68 50	822 00	2,466 00
Carpenters.....	1	10	2 50	65 00	780 00	780 00
Blacksmiths.....	1	10	2 60	67 60	811 20	811 20
Wachmen in shop.....	3	10	2 70	70 20	842 40	2,527 20
Section foremen.....	1	12	1 35	35 10	421 20	421 20
Section hands.....	23	10	1 91	49 66	595 92	13,706 16
Telegraph operators.....	73	10	1 25	32 50	390 00	28,470 00
Flagmen, switch-tenders and gate-keepers.....	1	10	1 00	26 00	312 00	312 00
Other employees.....	2	12	1 00	26 00	312 00	624 00
Totals.....	193	.....	.....	.....	.....	.....
Average paid office employees.....	27	.....	\$1 96	\$51 11	\$613 83	.....
“ other employees.....	166	.....	1 79	46 74	560 91	.....
“ all employees.....	193	.....	1 84	47 78	573 42	.....

Miles of road in this State..... 166.2
 Average number of employees in the State from June 30, 1887, to July 1, 1888... 170
 Total number of employees in the State June 30, 1888..... 193
 Accidents during the year: Employees, injured, 16. Others, killed, 1; injured, 2.
 * Paid by trip. † No limit.

RAILROADS — CONTINUED.

OAKLEY & COLBY RAILWAY.						OMAHA & REPUBLICAN VALLEY RAILWAY.					
<i>Occupation.</i>	<i>No. employed</i>	<i>Average hours employed daily..</i>	<i>Average daily wages</i>	<i>Average monthly earnings.....</i>	<i>Total yearly earnings of each class.</i>	<i>Occupation.</i>	<i>No. employed</i>	<i>Average hours employed daily..</i>	<i>Average daily wages</i>	<i>Average monthly earnings.....</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						OFFICE EMPLOYÉS.					
Station agents.....	1	.....	.....	\$60 00	\$720 00	Station agents.....	6	.....	.....	\$45 00	\$540 00
OTHER EMPLOYÉS.						OTHER EMPLOYÉS.					
Locomotive engineers.....	1	*	\$3 85	100 10	1,201 20	Locomotive engineers.....	5	*	\$3 85	100 10	1,201 20
Locomotive firemen.....	1	*	2 25	58 50	702 00	Locomotive firemen.....	5	*	2 25	58 56	702 72
Freight conductors.....	1	9	3 25	84 50	1,014 00	Passenger conductors.....	1	10	3 83	99 58	1,194 96
Telegraph operators.....	1	12	1 50	39 00	468 00	Freight conductors.....	3	4	3 25	84 50	1,014 00
Other employees	2	11	1 65	42 90	514 80	Brakemen.....	6	4	2 17	56 42	677 04
Totals.....	7	.....	.....	.....	\$5,134 80	Section foremen.....	11	10	1 68	43 68	524 16
Average paid office employees.....	1	.....	\$2 30	\$60 00	\$720 00	Section hands.....	34	10	1 25	32 50	390 00
“ other employees.....	6	.....	2 35	61 31	735 80	Telegraph operators.....	1	10	1 16	30 16	361 92
“ all employees	7	.....	2 35	61 12	733 54	Other employees.....	3	10	1 60	41 60	499 20
Totals.....						Totals.....					
Average paid office employees.....						Average paid office employees.....					
“ other employees.....						“ other employees.....					
“ all employees						“ all employees					
Miles of road in this State.....						Miles of road in this State.....					
Average number of employees in the State from June 30, 1887, to July 1, 1888.....						Average number of employees in the State from June 30, 1887, to July 1, 1888.....					
Total number of employees in the State June 30, 1888.....						Total number of employees June 30, 1888.....					
Accidents during the year:						Accidents during the year:					
Passengers, killed or injured.....						Passengers, injured.....					
Employees, injured.....						Employees, killed.....					
Others, killed or injured.....						Others, injured.....					
Total.....						Total.....					
* Paid by trip.						* Paid by trip.					
† No limit.						† No limit.					

RAILROADS — CONTINUED.

SALINA & SOUTHWESTERN RAILWAY.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Average hours employed daily...</i>	<i>Average daily wages.....</i>	<i>Average monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
<i>OFFICE EMPLOYÉS.</i>						
Station agents.....	5	.....	.....	\$41 00	\$492 00	\$2,460 09
<i>OTHER EMPLOYÉS.</i>						
Locomotive engineers.....	2	.....	\$3 85	100 10	1,201 20	2,402 40
Locomotive firemen.....	2	.....	2 25	58 56	702 72	1,405 44
Passenger conductors.....	1	.....	3 33	86 58	1,038 96	1,038 96
Brakemen.....	1	.....	3 25	84 50	1,014 00	1,014 00
Section foremen.....	4	.....	2 17	56 42	677 04	677 04
Section hands.....	8	.....	1 64	42 64	511 68	2,046 72
Telegraph operators.....	1	.....	1 25	32 50	390 00	3,120 00
Other employes.....	7	.....	1 65	42 90	514 80	514 80
Totals.....	32	.....	1 30	33 80	405 60	2,839 20
						\$17,518 56
<i>Average paid office employes.....</i>	<i>5</i>	<i>.....</i>	<i>\$1 57</i>	<i>\$41 00</i>	<i>\$492 00</i>	<i>.....</i>
<i>" " other employes.....</i>	<i>27</i>	<i>.....</i>	<i>1 78</i>	<i>46 47</i>	<i>557 72</i>	<i>.....</i>
<i>" " all employes.....</i>	<i>32</i>	<i>.....</i>	<i>1 75</i>	<i>45 62</i>	<i>547 45</i>	<i>.....</i>

Miles of road in this State..... 35.5
 Average number of employes in State from June 30, 1887, to July 1, 1888..... 32
 Total number of employes in State June 30, 1888..... 32

* Paid by trip.

† No limit.

SALINA, LINCOLN & WESTERN RAILWAY.

<i>Occupation.</i>	<i>No. employed.....</i>	<i>Average hours employed daily..</i>	<i>Average daily wages.....</i>	<i>Average monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
<i>OFFICE EMPLOYÉS.</i>						
Station agents.....	8	.....	.....	.....	\$504 00	\$4,032 00
<i>OTHER EMPLOYÉS.</i>						
Locomotive engineers.....	2	.....	\$4 12	107 12	1,285 44	2,570 88
Locomotive firemen.....	2	.....	2 41	62 66	751 82	1,503 64
Freight conductors.....	2	.....	3 33	86 58	1,038 96	2,077 92
Brakemen.....	4	.....	2 17	56 42	677 04	2,708 16
Section foremen.....	6	.....	1 64	42 64	511 68	3,070 08
Section hands.....	14	.....	1 25	32 50	390 00	5,460 00
Telegraph operators.....	1	.....	1 10	39 00	468 00	468 00
Other employes.....	5	.....	1 36	35 36	424 32	2,121 60
Totals.....	44	.....	.....	.....	.....	\$24,012 28
<i>Average paid office employes.....</i>	<i>8</i>	<i>.....</i>	<i>\$1 61</i>	<i>\$42 00</i>	<i>\$504 00</i>	<i>.....</i>
<i>" " other employes.....</i>	<i>36</i>	<i>.....</i>	<i>1 78</i>	<i>46 25</i>	<i>555 00</i>	<i>.....</i>
<i>" " all employes.....</i>	<i>44</i>	<i>.....</i>	<i>1 75</i>	<i>45 48</i>	<i>545 73</i>	<i>.....</i>

Miles of road in this State..... 73.16
 Average number of employes in State from June 30, 1887, to July 1, 1888..... 45
 Total number of employes in State June 30, 1888..... 44

* Paid by trip.

† No limit.

RAILROADS—CONTINUED.

CHICAGO, KANSAS & NEBRASKA RAILROAD.

Occupation.	No. employed....	No. hours em- ployed daily...	Average daily wages.....	Average monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Superintendents, div. or gen....	3	.....	.....	\$2,599 92	\$7,798 76	
Clerks.....	116	.....	.....	69 26	96,409 92	
Train dispatchers.....	10	.....	.....	1,269 12	12,691 20	
Operators.....	43	.....	.....	530 64	22,817 52	
Station agents.....	141	.....	.....	47 78	80,813 76	
OTHER EMPLOYÉS.						
Assistant master mechanics.....	1	.....	.....	125 00	1,500 00	
Locomotive engineers.....	115	10	.....	112 26	13,712 12	154,918 80
Locomotive firemen.....	125	10	.....	39 63	713 56	89,445 00
Passenger conductors.....	23	.....	.....	89 47	1,073 61	24,633 72
Freight conductors.....	42	10	.....	968 42	40,673 61	
Brakemen.....	118	10	.....	49 10	589 20	69,525 60
Carpenters.....	69	10	.....	74 54	894 48	61,719 12
Blacksmiths.....	21	10	.....	59 85	718 20	15,082 20
Watchmen.....	87	10	.....	55 88	670 56	58,338 72
Locomotives in shop.....	10	.....	.....	43 85	526 20	
Section foremen.....	197	10	.....	47 95	575 40	5,262 00
Section hands.....	882	10	.....	33 60	403 20	113,353 80
Flagmen, switch-tenders and gate-keepers.....	43	.....	.....	60 01	720 12	31,015 16
Other employees.....	576	.....	.....	54 92	659 04	379,607 04
Totals.....	2,622	.....	.....	.....	.....	\$1,621,319 36
Average paid office employees.....	313	.....	.....	.....	.....	.....
“ all other employees.....	2,309	.....	.....	.....	.....	.....
“ all employees.....	2,622	.....	.....	.....	.....	.....

Miles of road in this State..... 1,106.4
 Average number employees in the State from June 30, 1887, to July 1, 1888.... 2,000
 Total number of employees in the State June 30, 1888..... 2,622
 Accidents during the year: Passengers, injured, 9. Employees, killed, 3; injured, 50.
 Others, injured, 2.

SOLOMON RAILROAD.

Occupation.	No. employed....	No. hours em- ployed daily...	Average daily wages.....	Average monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Station agents.....	9	.....	.....	\$41 65	\$499 80	\$1,498 20
OTHER EMPLOYÉS.						
Locomotive engineers.....	2	*	.....	115 70	1,388 40	2,776 80
Locomotive firemen.....	2	*	.....	67 31	808 08	1,616 16
Passenger conductors.....	1	10	.....	86 58	1,038 96	1,038 96
Freight conductors.....	1	†	.....	88 92	1,067 01	1,067 01
Brakemen.....	2	†	.....	59 28	711 36	1,422 72
Section foremen.....	8	10	.....	42 90	514 80	4,118 40
Section hands.....	16	10	.....	32 50	390 00	6,240 00
Telegraph operators.....	2	10	.....	42 90	514 80	1,029 60
Other employees.....	9	10	.....	35 10	421 20	3,790 80
Totals.....	52	.....	.....	.....	.....	\$27,598 68
Average paid office employees.....	9	.....	.....	.....	.....	.....
“ all other employees.....	43	.....	.....	.....	.....	.....
“ all employees.....	52	.....	.....	.....	.....	.....

Miles of road in this State..... 57
 Average number of employees in the State from June 30, 1887, to July 1, 1888.... 53
 Total number of employees in the State June 30, 1888..... 52
 Accidents during the year: Employees, injured 4.

* Paid by trip. † No limit.

RAILROADS—CONTINUED.

KANSAS CITY & PACIFIC RAILWAY.

<i>Occupation.</i>	<i>No. employed....</i>	<i>No. hours em- ployed daily...</i>	<i>Av. daily wages.</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintendents, div. or gen.....	1	.....	.....	\$333 33	\$3,999 96	\$3,999 96
Clerks.....	2	.....	.....	37 50	450 00	900 00
Train dispatchers.....	1	.....	.....	75 00	900 00	900 00
Station agents.....	9	.....	.....	27 25	327 00	2,943 00
OTHER EMPLOYÉS.						
Locomotive engineers.....	2	10 ¹ ₂	3 00	78 00	936 00	1,872 00
Locomotive firemen.....	2	10 ¹ ₂	1 55	40 30	483 60	967 20
Passenger conductors.....	1	10	2 50	65 00	780 00	780 00
Freight conductors.....	1	10	2 00	52 00	624 00	624 00
Brakemen.....	2	10 ¹ ₂	34 58	411 96	829 92	829 92
Car-builders.....	1	10	1 67	43 42	521 04	521 04
Blacksmiths.....	1	10	2 50	65 00	780 00	780 00
Section foremen.....	8	10	1 33	34 58	414 96	3,319 68
Section hands.....	24	10	1 10	28 60	343 20	8,236 80
Other employes.....	3	10	1 40	36 40	436 80	1,310 40
Totals.....	58	.....	.....	.....	\$27,984 00	.....
Average paid office employes.....	13	.....	\$2 15	\$6 04	\$672 53	.....
“ other employes.....	45	.....	1 37	35 63	427 58	.....
“ all employes.....	58	.....	1 54	40 21	482 48	.....

Miles of road in this State..... 92.77
 Average number of employes in the State from June 30, 1887, to July 1, 1888, 58
 Total number of employes in the State June 30, 1888, 58
 Accidents during the year: None.

ST. JOSEPH & GRAND ISLAND RAILWAY.

<i>Occupation.</i>	<i>No. employed....</i>	<i>No. hours em- ployed daily...</i>	<i>Av. daily wages.</i>	<i>Av. monthly earnings.....</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Clerks.....	15	.....	.....	\$50 33	\$603 96	\$9,059 40
Operators.....	10	.....	.....	49 50	594 00	5,940 00
Station agents.....	22	.....	.....	61 60	739 20	16,262 40
OTHER EMPLOYÉS.						
Locomotive engineers.....	20	.....	\$3 30	85 80	1,029 60	20,592 00
Locomotive firemen.....	20	.....	1 80	46 80	561 60	11,232 00
Passenger conductors.....	5	.....	.....	100 00	1,200 00	6,000 00
Freight conductors.....	10	.....	2 74	71 24	854 88	8,548 80
Brakemen.....	30	.....	1 95	50 70	608 40	18,252 00
Car-builders and repairers.....	4	.....	2 00	52 00	624 00	2,496 00
Carpenters, bridge.....	18	10	2 50	65 00	780 00	14,040 00
Watchmen.....	3	12	1 50	39 00	468 00	1,404 00
Section foremen.....	27	10	1 65	42 90	514 80	13,899 60
Section hands.....	84	10	1 25	32 50	390 00	32,760 00
Laborers.....	9	10	1 30	33 80	405 60	3,650 40
Flagmen, switch-tenders, gate-keepers, and switchmen.....	4	12	2 40	62 40	748 80	2,995 20
Other employes.....	12	.....	1 65	42 90	514 80	6,177 60
Totals.....	293	.....	.....	.....	.....	\$173,309 40
Average paid office employes.....	47	.....	\$2 13	\$55 43	\$665 14	.....
“ other employes.....	246	.....	1 85	48 12	577 42	.....
“ all employes.....	293	.....	1 89	49 30	591 50	.....

Miles of road in this State..... 138
 Average number of employes in the State from June 30, 1887, to July 1, 1888, 246
 Total number of employes in the State June 30, 1888, 236
 Accidents during the year: Employees killed, 1; injured, 2; others killed, none;
 injured, 1.

RAILROADS—CONTINUED.

ST. LOUIS & SAN FRANCISCO RAILWAY.

KANSAS CITY, WYANDOTTE & NORTHWESTERN RAILROAD.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily.</i>	<i>Average daily wages</i>	<i>Av. monthly earnings</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintendents, div. or gen'l.....	2	..	..	\$200 00	\$2,400 00	\$4,800 00
Clerks.....	4	..	..	70 00	840 00	3,360 00
Train dispatchers.....	6	..	..	125 00	1,500 00	9,000 00
Operators.....	2	..	..	75 00	900 00	1,800 00
Station agents.....	58	..	..	45 00	540 00	31,320 00
OTHER EMPLOYÉS.						
Locomotive engineers.....	40	*	..	125 00	1,500 00	60,000 00
Locomotive firemen.....	40	*	..	60 00	720 00	28,800 00
Passenger conductors.....	10	*	..	100 00	1,200 00	12,000 00
Freight conductors.....	25	*	..	100 00	1,200 00	30,000 00
Brakemen.....	61	*	..	60 00	720 00	43,920 00
Carpenters.....	1	†	\$2 50	65 00	780 00	780 00
Blacksmiths.....	4	†	2 50	65 00	780 00	3,120 00
Watchmen.....	1	†	1 25	32 50	390 00	390 00
Section foremen.....	64	*	..	40 00	480 00	30,720 00
Section hand.....	185	†	1 10	28 60	343 20	63,592 00
Telegraph operators.....	13	*	..	50 00	600 00	11,400 00
Laborers.....	2	†	1 25	32 50	390 00	780 00
Other employes.....	173	..	..	†	..	..
Totals.....	697	..	..	..	..	\$35,782 00
Average paid office employes.....	72	..	\$2 23	\$58 19	\$698 33	..
" " all employes.....	625	..	1 46	38 07	456 80	..
.. " ..	697	..	1 54	40 15	481 75	..

Miles of road in this State..... 427.30

Average number of employes in the State June 30, 1887, to July 1, 1888..... 697

Total number of employes in the State June 30, 1888..... 697

Accidents during the year: Employes, killed, 2; injured, 3. Others, killed, 2.

Note.—The wages of "other employes" are not given. Of the 524 employes whose wages are given, the average yearly earnings amount to \$640.80.

* Per month; † per day; ‡ various.

Accidents during the year: Employes, injured, 5.

<i>Occupation.</i>	<i>No. employed..</i>	<i>Av. hours em- ployed daily.</i>	<i>Average daily wages</i>	<i>Av. monthly earnings</i>	<i>Average yearly earnings.</i>	<i>Total yearly earnings of each class.</i>
OFFICE EMPLOYÉS.						
Superintendents.....	1	..	..	\$250 00	\$3,000 00	\$3,000 00
Clerks.....	1	..	..	85 00	1,020 00	1,020 00
Train dispatchers.....	1	..	..	36 00	1,020 00	1,020 00
Operators.....	5	..	..	36 08	432 36	2,164 80
Station agents.....	19	..	..	45 50	546 00	10,374 00
OTHER EMPLOYÉS.						
Master mechanics.....	1	10	\$4 80	125 00	1,500 00	1,500 00
Locomotive engineers.....	15	11	3 50	91 00	1,092 00	16,380 00
Locomotive firemen.....	15	11	2 00	52 00	624 00	9,360 00
Passenger conductors.....	4	10	3 84	100 00	1,200 00	4,800 00
Freight conductors.....	10	11	3 00	78 00	936 00	9,360 00
Brakemen.....	15	11	2 00	52 00	624 00	9,360 00
Carpenters.....	8	10	2 25	58 50	702 00	5,616 00
Blacksmiths.....	2	10	3 00	78 00	936 00	1,872 00
Watchmen.....	2	10	2 75	71 50	858 00	1,716 00
Machinists.....	1	..	1 75	45 50	546 00	546 00
Section foremen.....	24	10	1 50	39 00	468 00	11,232 00
Section hand.....	46	10	1 25	32 50	390 00	38,040 00
Laborers.....	33	10	1 50	39 00	468 00	15,444 00
Totals.....	253	..	..	..	..	\$42,804 80
Average paid office employes.....	27	..	\$2 01	\$54 25	\$651 07	..
" " all employes.....	226	..	1 77	46 17	554 09	..
.. " ..	253	..	1 81	47 04	564 44	..

NUMBER OF EACH CLASS OF EMPLOYEES, WITH AGGREGATE WAGES PAID—CONTINUED.

Name of road.	Engineers.		Firemen.		Passenger conductors.		Freight conductors.		Brakemen.		Car-builders and repairers.		Carpenters.		Machinists.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
ATCHISON, TOPEKA & SANTA FE SYSTEM.																
Atchison, Topeka & S. F.	264	\$337,708 80	284	\$195,823 68	72	\$68,290 56	184	\$149,260 80	305	\$156,062 40	150	\$104,364 00	244	\$184,229 76	286	\$218,510 72
Chicago, Kas. & Western	19	24,601 20	13	10,018 32	22	18,464 16	28	13,977 60	23	13,977 60	.....	.....	5	3,073 20	6	3,087 36
Leavenworth, Topeka & S.W.	2	2,184 00	2	1,235 52	1	1,635 84	1	882 96	3	1,581 84	.....	.....	3	2,143 44	.....	.....
Manhat'n, Alma & Bur'g'tme,	1	1,238 64	1	636 48	.....	.....	1	893 28	2	1,098 24	.....	.....	1	842 40	.....	.....
Totals	286	\$365,732 64	300	\$207,974 00	73	\$69,326 40	208	\$169,501 20	338	\$172,720 08	150	\$104,364 00	253	\$190,288 80	292	\$222,498 08
Average, yearly .....	.....	1,271 79	.....	693 25	.....	949 67	.....	814 90	.....	511 00	.....	695 76	.....	752 00	.....	761 98
Average, monthly .....	.....	105 08	.....	57 77	.....	79 13	.....	67 91	.....	42 58	.....	57 98	.....	62 67	.....	63 49
Average, daily .....	.....	4 07	.....	2 22	.....	3 04	.....	2 61	.....	1 63	.....	2 23	.....	2 41	.....	2 44
BURLINGTON & MISSOURI RIVER SYSTEM.																
Atchison & Nebraska	4	\$4,056 00	4	\$2,496 00	4	\$4,056 00	1	\$655 20	6	\$2,995 20	2	\$892 32	4	\$2,496 00	1	\$512 88
Reaver Valley	4	6,177 60	4	3,706 56	2	1,872 00	2	1,435 20	6	3,369 60	.....	.....	8	4,992 00	.....	.....
Chicago, Neb. & Kas.	4	4,130 40	4	2,620 80	1	904 80	2	1,304 16	5	2,511 60	2	1,141 92	5	3,010 80	.....	.....
Repub. Valley, Kas. & S.W.	3	3,042 00	3	2,059 20	2	1,872 00	5	3,588 00	12	6,739 20	1	436 80	5	3,120 00	.....	.....
Totals	15	\$17,706 00	15	\$10,882 56	9	\$9,704 80	10	\$6,982 56	29	\$15,615 60	5	\$2,471 04	20	\$10,810 80	1	\$512 88
Average, yearly .....	.....	1,180 40	.....	725 50	.....	967 20	.....	698 25	.....	538 81	.....	494 21	.....	540 54	.....	542 86
Average, monthly .....	.....	98 37	.....	60 46	.....	80 60	.....	58 19	.....	44 90	.....	41 19	.....	45 04	.....	45 24
Average, daily .....	.....	3 78	.....	2 32	.....	3 10	.....	2 24	.....	1 73	.....	1 58	.....	1 73	.....	1 74
KANSAS CITY, FT. SCOTT & MEMPHIS SYSTEM.																
K. C., Ft. Scott & Memphis	40	\$19,920 00	42	\$29,484 00	6	\$6,233 76	22	\$18,532 80	92	\$53,102 40	8	\$5,616 00	60	\$12,681 60	7	\$4,761 12
K. C., Clinton & Springfield .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	40	\$19,920 00	42	\$29,484 00	6	\$6,233 76	22	\$18,532 80	92	\$53,102 40	8	\$5,616 00	60	\$12,681 60	7	\$4,761 12
Average, yearly .....	.....	1,248 00	.....	702 00	.....	1,038 96	.....	812 50	.....	577 20	.....	702 00	.....	711 36	.....	680 16
Average, monthly .....	.....	104 00	.....	58 50	.....	86 58	.....	70 21	.....	48 10	.....	58 50	.....	59 28	.....	56 68
Average, daily .....	.....	4 00	.....	2 25	.....	3 33	.....	2 70	.....	1 85	.....	2 25	.....	2 28	.....	2 18

NUMBER OF EACH CLASS OF EMPLOYEES, WITH AGGREGATE WAGES PAID—CONTINUED.

Name of road.	Blacksmiths and helpers.		Watchmen.		Section foremen.		Section hands.		Laborers.		Flagmen, switch tenders, and gate-keepers.		Other employes.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
ATCHISON, TOPEKA & SANTA FE SYSTEM.														
Atchison, Topeka & Santa Fe.....	53	\$45,474 00	41	\$19,315 92	294	\$61,441 28	1,127	\$400,851 36	555	\$260,395 20	233	\$156,629 40	1,433	\$1,147,978 64
Chicago, Kansas & Western.....	1	624 00	12	5,511 12	97	49,027 68	272	97,893 60	21	8,976 24	2	886 08	6	5,016 96
Leavenworth, Topeka & Southwestern.....					8	4,118 40	26	3,896 64	3	1,441 44	5	2,039 20	8	4,492 80
Nauvaton, Alma & Burlingame.....					7	3,581 76	17	6,523 92	3	1,600 56			4	1,634 88
Totals.....	54	\$46,098 00	53	\$24,857 04	406	\$218,169 12	1,442	\$514,865 52	562	\$272,413 44	240	\$159,574 68	1,451	\$1,159,123 28
Average, yearly.....		853 66		450 13		537 36		357 00		484 72		664 89		798 81
Average, monthly.....		71 14		37 51		44 78		29 75		40 39		55 40		66 57
Average, daily.....		2 73		1 44		1 79		1 15		1 55		2 13		2 56
BURLINGTON & MISSOURI RIVER SYSTEM.														
Atchison & Nebraska.....	1	\$858 00	2	\$873 60	8	\$4,380 48	29	\$10,857 60	19	\$8,002 80	4	\$2,982 72	14	\$6,988 80
Beaver Valley.....					5	2,700 00	11	3,775 20					3	1,638 00
Chicago, Nebraska & Kansas.....					10	5,400 00	21	7,207 20					5	1,950 00
Republican Valley, Kansas & Southw'n.....					9	4,860 00	20	6,864 00					3	1,404 00
Totals.....	1	\$858 00	2	\$873 60	32	\$17,340 48	81	\$28,704 00	19	\$8,002 80	4	\$2,982 72	25	\$11,980 80
Average, yearly.....		858 00		436 80		541 88		354 37		421 26		745 68		479 23
Average, monthly.....		71 50		36 40		45 16		29 53		35 10		62 14		39 77
Average, daily.....		2 75		1 40		1 78		1 14		1 35		2 39		1 53
KANSAS CITY, FORT SCOTT & MEMPHIS SYSTEM.														
Kansas City, Fort Scott & Memphis.....	2	\$1,560 00	3	\$1,216 80	37	\$17,316 00	277	\$95,066 40	89	\$55,265 36	1	\$390 00	73	\$39,858 00
Kansas City, Clinton & Springfield.....					1	468 00	8	2,745 60						
Totals.....	2	\$1,560 00	3	\$1,216 80	38	\$17,784 00	285	\$97,812 00	89	\$55,265 36	1	\$390 00	73	\$39,858 00
Average, yearly.....		780 00		405 60		468 00		343 20		336 24		390 00		546 00
Average, monthly.....		65 00		33 80		39 00		28 60		33 02		32 50		45 50
Average, daily.....		2 50		1 30		1 50		1 10		1 27		1 25		1 75

NUMBER OF EACH CLASS OF EMPLOYÉS, WITH AGGREGATE WAGES PAID.—Continued.

Name of road.	Super-intendents.		Clerks.		Dispatchers.		Operators.		Station agents.		Master mechanics.		Engineers.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
MISSOURI PACIFIC SYSTEM.														
Main line.....	7	\$17,690 40	70	\$27,568 80	12	\$7,689 60	100	\$29,952 00	55	\$20,988 00	1	\$2,598 96	44	\$49,420 80
Central Branch Union Pacific.....	2	5,400 00	69	15,152 40	8	1,526 40	82	17,712 00	71	23,515 20	1	1,818 96	40	31,689 20
Connell Grove, Osage City & Ottawa.....			11	976 80	8	1,526 40	21	5,241 60	14	3,830 40			7	7,775 04
Denver, Memphis & Atlantic.....			37	9,696 96	5	3,294 00	60	15,163 20	64	19,634 40			10	12,604 80
Kansas & Colorado.....			10	1,449 60	11	2,278 32	25	7,732 00	17	5,756 88			8	10,233 60
Kansas, Nebraska & Dakota.....			2	840 00	1	900 00	21	3,538 08	14	4,888 80			4	4,655 04
Kansas Northwestern.....			17	342 72			1	246 48	1	295 56				
Missouri, Kansas & Texas.....	2	5,299 92	36	20,360 16	6	5,158 52	44	14,963 52	29	11,275 20	1	1,818 96	43	49,639 20
Rock's County.....			1	120 00			3	468 00	3	1,360 80				
Salina, Sterling & El Paso.....			17	691 56			5	1,154 00	5	2,628 00				
St. Louis & Emporia.....			13	1,792 44			9	1,881 36	10	2,340 00			5	5,943 60
Topeka, Salina & Western.....			18	1,274 40	8	1,526 40	18	4,661 28	12	3,572 80			6	6,814 08
Wichita & Colorado.....							8	2,171 52	8	3,225 60				
Totals.....	11	\$28,390 32	301	\$80,265 84	51	\$22,373 24	397	\$104,875 04	223	\$105,311 64	3	\$6,236 88	167	\$178,785 3
Average yearly.....		2,580 94												
Average monthly.....		215 08												
Average daily.....														
UNION PACIFIC SYSTEM.														
Kansas Division—main line.....	1	\$3,000 00	41	\$29,716 80	4	\$5,820 00	2	\$1,680 00	68	\$44,023 20	2	\$4,626 00	96	\$102,735 36
L Junction City & Fort Kearney.....			1	360 00					13	7,558 20			8	4,804 80
Kansas Central.....			8	5,280 00	1	1,020 00			18	10,260 00	1	1,500 00	1	9,110 40
Oakley & Colby.....									1	720 00			1	1,201 20
Omaha & Republican Valley.....									6	3,240 00			5	6,006 00
Salina & Southwestern.....									5	2,460 00			2	2,402 40
Salina, Lincoln & Western.....									8	4,032 00			2	2,570 88
Solomon.....									9	4,498 20			2	2,776 80
Totals.....	1	\$3,000 00	50	\$35,356 80	5	\$6,840 00	2	\$1,680 00	128	\$76,791 60	3	\$6,126 00	120	\$131,607 84
Average yearly.....		3,000 00		707 13		1,368 00		840 00		600 00		2,042 00		1,096 73
Average monthly.....		250 00		58 92		114 00		70 00		50 00		170 16		90 56
Average daily.....												6 54		3 48
Chicago, Kansas & Nebraska.....	3	\$7,799 76	116	\$96,409 92	10	\$12,691 20	43	\$22,817 52	141	\$80,843 76	1	\$1,500 00	115	\$154,918 80
Kansas City & Pacific.....	1	3,999 96	2	900 00	1	900 00			9	2,943 00			2	1,572 00
St. Joseph & Grand Island.....			15	9,059 40			10	5,940 00	22	16,262 40			20	20,592 00
St. Louis & San Francisco.....	2	4,800 00	4	3,360 00	6	9,000 00	21	13,200 00	58	31,320 00			40	60,000 00
Kansas City, Wyandotte & Northwestern.....	1	3,000 00	1	1,020 00	1	1,020 00	5	2,164 80	19	10,374 00	1	1,500 00	15	16,380 00

NUMBER OF EACH CLASS OF EMPLOYEES, WITH AGGREGATE WAGES PAID.—CONTINUED.

Name of road.	Firemen.		Passenger conductors.		Freight conductors.		Brakemen.		Car-builders and repairers.		Carpenters.		Machinists.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
MISSOURI PACIFIC SYSTEM.														
Main Line.....	50	\$31,512 00	20	\$17,222 40	42	\$95,511 84	115	\$68,889 60	15	\$9,594 00	19	\$13,278 72	2	\$1,728 48
Central Branch, Union Pacific.....	41	25,200 24	29	24,610 56			68	31,611 84			53	36,379 20	41	31,468 32
Council Grove, Osage City & Ottawa.....	4	5,091 84		4,093 44	8	6,839 04	13	3,731 32	2	1,022 00	5	3,666 00		
Denver, Memphis & Atlantic.....	10	6,352 00	9	3,425 76	17	8,645 52	33	9,369 36	1	577 20	19	13,100 88		
Kansas & Colorado.....	9	6,402 24	7	1,258 59	12	4,867 20	33	6,074 64	4	2,296 32	5	3,775 20		
Kansas, Nebraska & Dakota.....	4	2,633 28	2	1,872 00	3	2,611 44	5	2,808 00			3	2,293 20		
Kansas Southwestern.....				1,726 96	1	726 96	2	936 00						
Missouri, Kansas & Texas.....	41	25,967 76	18	14,208 48	35	30,794 40	73	43,957 68	15	8,751 60	23	17,437 68	44	39,536 64
Rooks County.....			1	350 64	1	624 00	5	1,076 40						
Salina, Sterling & El Paso.....				2,171 52	4	2,608 32	5	2,418 00	1	521 04	3	2,171 52		
St. Louis & Emporia.....	5	3,416 40	3	998 40	7	2,817 36	20	5,865 60			4	2,982 72		
Topeka, Salina & Western.....	7	4,520 88	4	1,872 00	5	4,789 20	7	4,542 72						
Wichita & Colorado.....			2											
Totals.....	175	\$111,296 64	100	\$62,870 72	135	\$100,835 28	379	\$181,281 36	38	\$22,832 16	134	\$95,085 12	87	\$72,733 44
Average yearly.....										600 85		709 59		836 02
Average monthly.....										50 07		59 13		69 67
Average daily.....										1 92		2 27		2 68
UNION PACIFIC SYSTEM.														
Kansas Division, main line.....	94	\$60,122 40	11	\$15,958 80	30	\$30,888 00	64	\$43,929 60	69	\$43,056 00	86	\$67,080 00	85	\$72,930 00
Junction City & Fort Kearney.....	4	2,810 88	2	1,141 92	2	2,028 00	4	2,708 16						
Kansas Central.....	8	5,426 32	2	2,028 00	2	2,371 20	5	3,588 00	3	2,466 00	1	780 00	3	2,527 20
Oakley & Colby.....	1	702 00				1,014 00								
Omaha & Republican Valley.....	5	3,513 60	1	1,194 96	3	3,042 00	6	4,062 00						
Salina & Southwestern.....	2	1,405 42	1	1,038 96	1	1,014 00	1	677 04						
Salina, Lincoln & Western.....	2	1,503 64	2	2,077 92	4	2,708 16								
Solomon.....	2	1,616 16	1	1,038 96	1	1,067 04	2	1,422 72						
Totals.....	118	\$77,100 42	19	\$24,479 52	44	\$44,132 40	82	\$56,387 52	72	\$45,522 00	87	\$67,860 00	88	\$75,457 20
Average yearly.....				1,288 41		1,003 01		687 65		632 25		780 00		857 47
Average monthly.....				107 37		83 58		57 30		52 69		65 00		71 45
Average daily.....				4 13		3 21		2 20		2 02		2 50		2 75
Chicago, Kansas & Nebraska.....	125	\$89,445 00	23	\$24,693 72	42	\$40,673 64	118	\$69,535 60			69	\$61,719 12	87	\$58,338 72
Kansas City & Pacific.....	2	967 20	1	780 00	1	624 00	2	829 92	1	\$521 04				
St. Joseph & Grand Island.....	20	11,232 00	5	6,000 00	10	8,548 80	30	18,252 00	4	2,496 00	18	14,040 00		
St. Louis & San Francisco.....	40	28,800 00	10	12,000 00	25	30,000 00	61	43,920 00			1	780 00		
Kansas City, Wyandotte & Northwestern.....	15	9,360 00	4	4,800 00	10	9,360 00	15	9,360 00			8	5,616 00	2	1,716 00

2 And freight conductors.

NUMBER OF EACH CLASS OF EMPLOYÉS, WITH AGGREGATE WAGES PAID — CONCLUDED.

Name of road.	Blacksmiths and helpers.		Watchmen.		Section foremen.		Section hands.		Telegraph operators.		Laborers.		Flagmen, switchmen and gatekeepers.		Other employes.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
MISSOURI PACIFIC SYSTEM.																
Main line.....	2	\$1,428 80	7	\$2,620 80	83	\$38,326 08	546	\$197,680 32	.....	.....	15	\$5,990 40	44	\$25,122 24	126	\$46,793 88
Central Branch Union Pacific.....	183	46,353 84	.....	.....	64	31,559 44	251	89,275 68	.....	.....	.....	.....	48	12,760 82	206	43,483 44
Council Grove, Osage & Ottawa.....	.....	.....	.....	.....	18	7,750 08	108	38,076 48	.....	.....	.....	.....	5	1,216 80	22	4,912 08
Denver, Memphis & Atlantic.....	.....	.....	.....	.....	68	32,248 32	250	83,369 60	.....	.....	.....	.....	10	3,751 82	70	23,805 60
Kansas & Colorado.....	.....	.....	.....	.....	30	12,729 60	137	46,590 96	.....	.....	.....	.....	2	1,404 00	29	8,505 12
Kansas, Nebraska & Dakota.....	.....	.....	.....	.....	23	11,194 56	67	23,621 52	.....	.....	.....	.....	1	414 96	11	5,045 04
Kansas, Southwestern.....	.....	.....	.....	.....	6	1,010 88	6	2,040 48	.....	.....	.....	.....	.....	.....	1	156 00
Missouri Kansas & Texas.....	7	6,661 20	5	2,464 80	42	20,573 28	110	38,781 60	.....	.....	.....	.....	43	15,160 08	193	96,345 60
Rockers County.....	.....	.....	.....	.....	3	1,010 88	4	1,435 20	.....	.....	.....	.....	.....	.....	3	514 80
Salina, Sterling & El Paso.....	.....	.....	.....	.....	9	2,106 00	13	4,461 60	.....	.....	.....	.....	.....	.....	1	502 32
St. Louis & Emporia.....	.....	.....	.....	.....	16	8,336 64	68	23,974 08	.....	.....	.....	.....	2	1,104 48	5	1,887 60
Topoka, Salina & Western.....	.....	.....	.....	.....	20	8,299 20	126	47,960 64	.....	.....	.....	.....	5	1,216 80	21	5,045 04
Wichita & Colorado.....	.....	.....	.....	.....	10	2,964 00	16	5,491 20	.....	.....	.....	.....	11	789 36	10	4,149 60
Totals.....	92	\$54,443 84	12	\$5,085 60	392	\$78,098 96	1,682	\$603,276 96	.....	.....	45	\$19,980 48	169	\$61,816 08	698	\$247,182 12
Average, yearly.....	.....	.....	.....	.....	.....	.....	.....	358 66	.....	.....	.....	444 01	.....	.....	.....	.....
Average, monthly.....	.....	.....	.....	.....	.....	.....	.....	29 88	.....	.....	.....	37 00	.....	.....	.....	.....
Average, daily.....	.....	.....	.....	.....	.....	.....	.....	1 15	.....	.....	.....	1 42	.....	.....	.....	.....
UNION PACIFIC SYSTEM.																
Kansas Division — main line.....	16	\$12,979 20	16	\$6,489 60	69	\$36,597 60	306	\$119,340 00	42	\$20,966 40	95	\$42,978 00	9	\$6,037 20	361	\$208,369 20
Junction City & Fort Kearney.....	.....	.....	.....	.....	12	6,215 04	31	12,090 00	4	1,244 88	.....	.....	1	390 00	12	5,616 00
Kansas Central.....	1	811 20	1	421 20	23	13,706 16	73	28,470 00	1	312 00	.....	.....	2	624 00	32	18,969 00
Oakley & Colby.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Omaha & Republican Valley.....	.....	.....	.....	.....	11	5,765 76	34	13,260 00	1	468 00	.....	.....	.....	.....	3	1,029 60
Salina & Southwestern.....	.....	.....	.....	.....	4	2,046 72	8	3,120 00	1	314 92	.....	.....	.....	.....	3	1,497 60
Salina, Lincoln & Western.....	.....	.....	.....	.....	6	3,070 08	14	5,460 00	1	468 00	.....	.....	.....	.....	7	2,839 20
Solomon Railroad.....	.....	.....	.....	.....	8	4,118 40	16	6,240 00	2	1,029 60	.....	.....	.....	.....	5	2,121 60
Totals.....	17	\$13,790 40	17	\$6,910 80	133	\$71,519 76	482	\$187,980 00	53	\$25,365 60	95	\$42,978 00	12	\$7,051 20	431	\$244,283 00
Average, yearly.....	.....	.....	.....	.....	.....	.....	.....	390 00	.....	.....	.....	432 40	.....	.....	.....	\$24,566 66
Average, monthly.....	.....	.....	.....	.....	.....	.....	.....	32 50	.....	.....	.....	37 70	.....	.....	.....	47 39
Average, daily.....	.....	.....	.....	.....	.....	.....	.....	1 25	.....	.....	.....	1 45	.....	.....	.....	1 82
Chicago, Kansas & Nebraska.....	21	\$15,082 20	10	\$5,262 00	197	\$113,353 80	882	\$355,622 40	.....	.....	.....	.....	43	\$31,015 16	576	\$79,607 04
Kansas City & Pacific.....	1	780 00	.....	.....	8	3,319 68	24	8,286 80	.....	.....	.....	.....	.....	.....	3	1,310 40
St. Joseph & Grand Island.....	.....	.....	3	1,404 00	27	13,899 60	84	32,760 00	.....	.....	.....	.....	9	\$3,660 40	4	2,995 20
St. Louis & San Francisco.....	4	3,120 00	1	300 00	64	30,720 00	185	63,592 00	.....	.....	.....	.....	2	780 00	12	6,177 60
Kansas City, Wyandotte & N.-W.....	2	1,872 00	1	546 00	24	11,232 00	96	38,040 00	.....	.....	.....	.....	33	15,444 00	.....	173 00

¹ And other shopmen.² And watchmen.³ And laborers.

The next table shows the miles of road, average number of employ  s, and their total and average yearly earnings by systems; also the totals for the State.

<i>System.</i>	<i>Miles of road.</i>	<i>Average No. of employ��s.</i>	<i>Total yearly earnings.</i>	<i>Average yearly earnings.</i>
Atchison, Topeka & Santa F��.....	2,544.95	6,909	\$4,443,967 32	\$643 20
Burlington & Missouri River.....	206.38	321	173,297 60	559 86
Kansas City, Fort Scott & Memphis.....	280.05	841	450,555 80	535 73
Missouri Pacific.....	2,028.00	5,361	2,343,057 08	437 05
Union Pacific.....	993.34	2,059	1,252,170 06	608 14
Chicago, Kansas & Nebraska.....	1,106.40	2,622	1,621,319 36	618 39
Kansas City & Pacific.....	92.77	58	27,984 00	482 48
Kansas City, Wyandotte & Northwestern.....	157.00	253	142,804 80	564 44
St. Joseph & Grand Island.....	138.00	293	173,309 40	591 50
St. Louis & San Francisco.....	427.30	524	335,782 00	640 80
Totals.....	7,974.19	19,241	\$10,964,247 42	\$569 81

The daily wages of locomotive engineers, as given in these reports, range from \$3 to \$4.95; firemen, from \$1.55 to \$2.97; passenger conductors, from \$2.50 to \$4.13; freight conductors, from \$2.50 to \$3.83; brakemen, from \$1.33 to \$2.31; car-builders and repairers, from \$1.43 to \$2.25; carpenters, from \$2 to \$2.50; machinists, from \$1.74 to \$2.75; blacksmiths and helpers, from \$2.20 to \$3; section hands, from \$1 to \$1.25; laborers, from \$1.25 to \$1.74.

The averages obtained for the following table were made by dividing the total number of each class reported into the aggregate sum paid in daily wages. The table includes the yearly averages since the year of the first report of this Bureau (1885), which were obtained in the same manner:

	1885.	1886.	1887.	1888.
Locomotive engineers.....	\$3 50	\$3 56	\$3 73	\$3 98
Locomotive firemen.....	1 91	2 10	2 15	2 21
Passenger conductors.....	3 12	3 31	3 23	3 14
Freight conductors.....	2 77	2 82	2 85	2 81
Brakemen.....	1 85	1 97	1 90	1 86
Car builders and repairers.....	.....	.....	.....	2 12
Carpenters.....	.....	2 13	2 20	2 41
Machinists.....	2 23	2 42	2 47	2 48
Blacksmiths and helpers.....	.....	.....	.....	2 61
Section foremen.....	.....	1 46	1 59	1 71
Section hands.....	.....	1 11	1 19��	1 18
Laborers.....	1 32	1 36	.....	1 49

Following is a general summary of the total wages paid, as well as the average yearly, monthly and daily earnings of the several trades where reliable data has been furnished in the reports:

803 locomotive engineers were paid.....	\$997,514 64
Average paid each.....	1,242 23
Monthly average.....	103 52
Daily average.....	3 98
837 locomotive firemen were paid.....	576,541 82
Average paid each.....	688 82
Monthly average.....	57 40
Daily average.....	2 21
150 passenger conductors were paid.....	147,018 20
Average paid each.....	980 12
Monthly average.....	81 67
Daily average.....	3 14

372 freight conductors were paid.....	\$326,355 40
Average paid each.....	877 30
Monthly average.....	73 11
Daily average.....	2 81
767 brakemen were paid.....	439,713 12
Average paid each.....	577 33
Monthly average.....	48 28
Daily average.....	1 86
278 car-builders and repairers were paid.....	183,822 24
Average paid each.....	661 23
Monthly average.....	55 10
Daily average.....	2 12
650 carpenters were paid.....	488,881 44
Average paid each.....	752 12
Monthly average.....	62 67
Daily average.....	2 41
102 blacksmiths were paid.....	83,160 60
Average paid each.....	815 30
Monthly average.....	67 94
Daily average.....	2 61
564 machinists were paid.....	436,047 44
Average paid each.....	773 13
Monthly average.....	64 43
Daily average.....	2 48
929 section foremen were paid.....	497,338 44
Average paid each.....	535 35
Monthly average.....	44 61
Daily average.....	1 71
5,243 section hands were paid.....	1,930,889 68
Average paid each.....	368 28
Monthly average.....	30 69
Daily average.....	1 18
854 laborers were paid.....	398,514 48
Average paid each.....	466 64
Monthly average.....	38 88
Daily average.....	1 49

The next table gives a list of persons killed and injured during the year, as reported by the several roads. It will be seen that but three passengers were killed, which, considering the large number of people carried, is extremely small. The fatality to employes is much greater, and holds about the same ratio, considering the additional mileage, as was presented last year, when 39 were reported killed and 1,003 were injured. Taken all in all, it must be acknowledged that the life of a "railroad man" is a dangerous one.

SYSTEM.	PASSENGERS.		EMPLOYÉS.		OTHERS.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Atchison, Topeka & Santa Fé.....	1	64	23	877	19	57
Burlington & Missouri River.....	2	4	.....	9	.....	.....
Kansas City, Fort Scott & Memphis.....	.....	.....	2	18	3	2
Missouri Pacific.....	.....	6	14	21	.....	7
Union Pacific.....	.....	24	7	289	4	28
Chicago, Kansas & Nebraska.....	.....	9	3	50	.....	2
Kansas City & Pacific.....	.....	.....	.....	.....	.....	.....
Kansas City, Wyandotte & Northwestern.....	.....	.....	.....	5	.....	.....
St. Joseph & Grand Island.....	.....	.....	1	2	.....	1
St. Louis & San Francisco.....	.....	.....	2	3	2	.....
Totals.....	3	107	52	1,274	28	97

ATCHISON STREET RAILROAD COMPANY.
Length of road, 65.5 miles; capital invested, \$50,000.

OCCUPATION.	Number employed.....	WAGES.			Total sum paid for labor during the year.....	Hours employed daily.....	No. of days employed during the week.....
		Daily.....	Weekly.....	Yearly.....			
Superintendent.....	1	\$3 33	\$23 32	\$1,212 64	\$1,212 64	16	7
Conductors*.....	13	1 35	9 45	491 40	6,288 20	16	7
Drivers.....	3	1 35	9 45	491 40	1,474 20	12	7
Hostlers.....	1	1 57	11 00	572 00	572 00	12	7
Blacksmith.....	2	1 35	9 50	491 40	982 80	12	7
Trackmen.....							
Aggregate.....					\$10,529 84		

Total number employes June 30, 1888, 20.

*Where necessary our drivers act as conductors; our night hostlers act as watchmen. We report our men as working sixteen hours each day, out of this time we give them two reliefs of forty minutes each, and whenever possible we make reliefs longer; (this is what we term the dinner and supper hours.) Trackmen and blacksmiths only work on the Sabbath where it is absolutely necessary.

EMPORIA CITY RAILWAY COMPANY.
Length of road $3\frac{1}{2}$ miles; capital invested, \$25,000.

OCCUPATION.	Number employed.....	WAGES.			Total sum paid for labor during the year.....	Hours employed daily.....	No. of days employed during the week.....
		Daily.....	Weekly.....	Yearly.....			
Superintendent.....	1						7
Foreman.....	1	\$1 00	\$7 00	\$364 00	\$364 00	14	7
Drivers.....	5	1 00	7 00	364 00	1,820 00	14	7
Hostler.....	1	1 00	7 00	364 00	364 00	14	7
Aggregate.....				\$2,548 00	\$2,548 00		

Total number employes June 30, 1888, 8.

LAWRENCE TRANSPORTATION COMPANY.
Length of road, five miles; capital invested, \$23,000.

OCCUPATION.	Number employed.....	WAGES.			Total sum paid for labor during the year.....	Hours employed daily.....	No. of days employed during the week.....
		Daily.....	Weekly.....	Yearly.....			
Superintendent.....	1	\$3 33	\$23 31	\$1,212 12	\$1,212 12	14	7
Drivers.....	5	1 34	9 38	487 76	2,438 80	14	7
Hostlers.....	2	1 23	8 61	447 72	895 44	12	7
Aggregate.....					\$4,546 36		

Total number employes June 30, 1888, 8.

METROPOLITAN STREET RAILWAY COMPANY—KANSAS CITY, KANSAS.

OCCUPATION.	No. employed.....	Average number hours employed daily.....	Average daily wages.....	Average monthly wages.	Average yearly earnings.....	Total yearly earnings each class.....
OFFICE EMPLOYÉS.						
Superintendents, division or general.....	2	.....	.....	\$67 50	\$810 00	\$1,620 00
OTHER EMPLOYÉS.						
Master and assistant master mechanics.....	2	12	\$2 00	52 00	624 00	1,248 00
Passenger conductors.....	35	12	2 40	72 00	*864 00	30,240 00
Gripmen.....	35	12	2 50	72 00	*864 00	30,240 00
Drivers.....	14	9	1 37	41 06	*492 75	6,898 50
Totals.....	88	.....	.....	.....	.....	\$70,246 50
Average paid office employes.....	2	.....	\$2 59	\$67 50	\$810 00	.....
Average paid other employes.....	86	.....	2 21	66 49	797 98	.....
Average paid all employes.....	88	.....	2 22	66 52	798 25	.....

Miles of road in this State..... 6
 Average number employes in the State from June 30, 1887, to July 1, 1888..... 75
 Total number employes in the State June 30, 1888..... 100
 Accidents during the year: Passengers, killed, 1.

"It is very difficult to give the foregoing information exactly, as the lines run through Kansas City, Kansas, and Kansas City, Missouri, with headquarters in Missouri, where power house, machine shop and offices are located."—SUPERINTENDENT.

INTER-STATE CONSOLIDATED RAPID TRANSIT RAILWAY CO.—KANSAS CITY, KANSAS.

OCCUPATION.	No. employed.....	Average number hours employed daily.....	Average daily wages.....	Average monthly wages.	Average yearly earnings.....	Total yearly earnings each class.....
OFFICE EMPLOYÉS.						
Superintendent and master mechanic.....	1	.....	.....	\$200 00	\$2,400 00	\$2,400 00
Clerks.....	3	.....	.....	60 00	720 00	2,160 00
Train dispatcher.....	1	.....	.....	75 00	900 00	900 00
OTHER EMPLOYÉS.						
Locomotive engineers.....	21	9	\$3 00	78 00	936 00	19,656 00
Passenger conductors.....	21	9	2 30	60 00	720 00	15,120 00
Brakemen.....	14	9	2 30	60 00	720 00	10,080 00
Carpenter.....	1	10	2 50	65 00	780 00	780 00
Blacksmiths.....	3	10	2 08	54 08	648 96	1,946 88
Machinists in shop.....	7	10	2 61	67 86	814 32	5,700 24
Watchmen.....	2	12	1 92	50 00	600 00	1,200 00
Section foremen.....	3	10	3 08	80 00	960 00	2,880 00
Section hands.....	12	10	1 50	39 00	468 00	5,616 00
Laborers.....	30	10	1 50	39 00	468 00	1,404 00
Flagmen, switch-tenders and gate-keepers.....	6	9	.....	50 00	600 00	3,600 00
Other employes.....	10	10	2 25	58 50	702 00	7,020 00
Totals.....	135	.....	.....	.....	.....	\$80,463 12
Average paid office employes.....	5	.....	\$3 50	\$91 00	\$1,092 00	.....
Average paid other employes.....	130	.....	1 89	48 08	576 95	.....
Average paid all employes.....	135	.....	1 91	49 59	596 02	.....

Miles of road in this State (double track)..... 6½
 Total number employes in the State June 30, 1888..... 210

*Calculated on a basis of 365 days to the year.

LEAVENWORTH AND SUBURBAN RAILWAY COMPANY.

Length of road, 5 miles; capital invested, \$100,000.

OCCUPATION.	Number employed.....	WAGES.			Total sum paid for labor during the year.....	Hours employed daily....	No. of days employed during the week.....
		Daily.....	Monthly.....	Yearly.....			
Superintendent.....	1	\$2 77	\$83 33	\$999 96	\$999 96	15	7
Foreman.....	1	1 50	45 00	540 00	540 00	15	7
Drivers.....	7	1 17	35 00	420 00	2,940 00	14	7
Hostlers.....	4	1 33	40 00	480 00	1,920 00	14	7
Blacksmith.....	1	1 66	150 00	600 00	600 00	10	7
Boy.....	1	50	15 00	180 00	180 00	9	7
Aggregate.....					\$7,179 96		

Total number of employes June 30, 1888, 15.

He furnishes iron for shoeing.

SALINA STREET RAILWAY COMPANY.

Length of road, 3 miles and 620 feet. Capital and franchise estimated at \$50,000. No strikes; no accidents. This road is now operated by contract with Bracy Bros. at a cost of ninety-one dollars and two-thirds cent per car each month, or at the rate of eleven hundred dollars per year. They are running four cars, and each car runs fifteen teams, over their line from the Union Pacific Depot to the Kansas Wesleyan University, a distance of over two and one-half miles.

STRONG CITY AND COTTONWOOD FALLS CONSOLIDATED STREET RAILROAD.

Length of road, 2 miles; capital invested, \$11,000.

OCCUPATION.	Number employed.....	WAGES.			Total sum paid for labor during the year.....	Hours employed daily....	No. of days employed during the week.....
		Daily.....	Weekly.....	Yearly.....			
Superintendent.....	1						
Drivers.....	2	\$1 00	\$7 00	\$364 00	\$728 00	15	7
Hostler.....	1	1 00	7 00	364 00	364 00	15	7
Aggregate.....					\$1,092 00		

Total number employed June 30, 1888, 4. No strikes; no accidents.

TOPEKA CITY RAILWAY COMPANY.
Length, 14 miles; capital invested, \$450,000.

OCCUPATION.	Number employed.....	WAGES.			Total sum paid for labor during the year.....	Hours employed daily.....	No. of days employed during the week.....
		Daily.....	Weekly.....	Yearly.....			
Superintendent.....	1	\$4 00	\$28 00	\$1,456 00	\$1,456 00	12	7
Assistant superintendents and roadmasters...	2	2 50	17 50	910 00	1,820 00	10	7
Foremen.....	2	2 00	14 00	728 00	1,456 00	10	7
Track foreman.....	1	1 75	10 50	546 00	546 00	10	6
Conductors.....	24	1 50	10 50	546 00	13,104 00	12	7
Drivers.....	38	1 50	10 50	546 00	20,748 00	12	7
Hostlers.....	14	1 25	8 75	455 00	6,370 00	12	7
Car-house men.....	4	1 25	8 75	455 00	1,820 00	.....	.....
Starters (transfer men).....	3	1 50	10 50	546 00	1,638 00	12	7
Watchmen.....	2	1 50	10 50	546 00	1,092 00	12	7
Blacksmiths.....	2	2 00	12 00	624 00	1,348 00	10	6
Carpenter.....	1	2 00	12 00	624 00	624 00	10	6
Trackmen.....	20	1 50	9 00	468 00	9,360 00	10	6
Boy.....	1	50	3 00	156 00	156 00	10	6
Aggregate.....	.....	.....	.....	.....	\$61,438 00	.....	.....

Total number employes June 30, 1888, 115.

TOPEKA RAPID TRANSIT RAILWAY COMPANY.

OCCUPATION.	Number employed.	A. number hours employed daily.....	Average daily wages.....	Average monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Superintendent (div. or gen.).....	1	.....	.....	\$90 00	\$1,080 00	\$1,080 00
Clerk.....	1	.....	.....	50 00	600 00	600 00
OTHER EMPLOYÉS.						
Master and assistant master mechanic.....	1	10	\$3 33	86 58	1,038 96	1,038 96
Locomotive engineers.....	8	14	3 08	80 08	960 96	7,687 68
Passenger conductors.....	6	14	2 10	54 60	655 20	3,931 20
Blacksmith.....	1	10	1 50	39 00	468 00	468 00
Machinists in shop.....	2	10	2 25	58 50	702 00	1,404 00
Watchmen.....	2	12	1 62	42 12	505 44	1,010 88
Section foreman.....	1	10	1 33	34 58	414 96	414 96
Section hands.....	7	10	1 25	32 50	390 00	2,730 00
Laborers.....	4	10	1 25	32 50	390 00	1,560 00
Other employes.....	8	11	1 50	39 00	468 00	3,744 00
Totals.....	42	.....	.....	.....	.....	\$25,669 68
Average paid office employes.....	2	.....	\$2 69	\$70 00	\$840 00	.....
Average paid other employes.....	40	.....	1 92	49 98	599 74	.....
Average paid all employes.....	42	.....	1 96	50 93	611 18	.....

Miles of road..... 14
Average number of employes from June 30, 1887, to July 1, 1888..... 40
Total number of employes June 30, 1888..... 45

Accidents during the year: Passengers, injured, 2. Employes, injured, 2.

NOTE.—Engineers and conductors are paid by the hour, and have their option of number of hours which they will work.

WEST SIDE CIRCLE RAILWAY COMPANY—TOPEKA.

OCCUPATION.	No. employed.....	No. hours employed daily.....	Average daily wages.....	Average monthly earnings.....	Average yearly earnings.	Total yearly earnings of each class.
OFFICE EMPLOYÉS.						
Superintendent	1	.....	.....	\$90 00	\$1,080 00	\$1,080 00
OTHER EMPLOYÉS.						
Locomotive engineers.....	2	14	\$3 30	85 80	1,029 60	2,059 20
Passenger conductors	2	14	1 50	39 00	468 00	936 00
Watchman	1	14	1 50	39 00	468 00	468 00
Section hand.....	1	12	1 50	39 00	468 00	468 00
Totals.....	7	.....	.....	.....	.....	\$5,011 20
Average paid office employes.....	1	.....	\$3 45	\$90 00	\$1,080 80	.....
Average paid other employes.....	6	.....	2 10	54 60	655 20	.....
Average paid all employes.....	7	.....	2 29	59 65	715 88	.....

Miles of road in the State	5
Average number of employes from June 30, 1887, to July 1, 1888	7
Total number of employes June 30, 1888	7

WICHITA STREET RAILWAY COMPANY.

Length of road, 40 miles; capital invested, \$400,000.

OCCUPATION.	Number employed	WAGES.			Total sum paid for labor during the year.....	No. of days employed during the week
		Daily	Weekly	Yearly.....		
Superintendent	1	\$10 00	\$60 00	\$3,120 00	\$3,120 00	6
Foreman	1	2 00	14 00	728 00	728 00	7
Drivers	40	1 50	10 50	546 00	21,840 00	7
Hostlers.....	20	1 35	9 45	491 40	9,828 00	7
Car-house men.....	3	1 35	9 45	491 40	1,474 20	7
Starter.....	1	2 00	14 00	728 00	728 00	7
Watchmen.....	3	1 50	10 50	546 00	1,638 00	7
Blacksmiths.....	2	2 25	15 75	819 00	1,638 00	7
Carpenter.....	1	2 25	15 75	819 00	819 00	7
Aggregate.....	.....	.....	.....	.....	\$41,813 20	.....

Total number of employes June 30, 1888, 72.

CONCLUSION.

One thousand one hundred and fifty-five hands were employed in the 242 flouring mills reporting, an average of $4\frac{3}{4}$ to each. These mills operated 245 days each at an average cost for labor of about \$10 per day, or \$2,450 for the year, a total of \$592,900, and an average of \$515 to each of the employés.

Five hundred and ninety industrial establishments (other than flouring mills) employed 12,329 men, 1,866 women, and 934 youths (chiefly boys), a total of 14,129, to whom wages were paid amounting to \$6,617,920, an average to each man, woman and child of \$468.39.

Adding the flouring mills, the 15,279 employés engaged in the 832 establishments reporting received as wages the sum of \$7,210,820, or \$470 each, the establishments employing on an average about $18\frac{1}{2}$ hands. If we accept the number of establishments reporting as 90 per cent. of the whole, we have 16,977 hands receiving during the year wages amounting to \$8,012,020. Five thousand five hundred and ninety-eight coal miners and mine laborers earned during the year \$300 each, or a total of \$1,679,400, while at least 2,000 more were engaged in lead and zinc mining, earning from \$9 to \$12 per week. Estimating the average earnings of this class for the year at the average of those engaged in other industrial pursuits (\$470), the total wages would amount to \$940,000.

Again, 19,241 railroad employés were paid \$10,964,247.42 during the year an average of \$569.81 each; and 514 street-railway employés were paid \$308,537.86, an average of \$600.27. Taken together, and estimated on the 90 per cent. basis, there would be 21,950 employés of railroads and street railways in the State, receiving as wages the sum of \$12,525,316.90. This is a very small increase over last year; but as railroad building was then very active, and a large force was engaged in construction, the relative increase may be said to have been fairly well maintained, more especially as the figures this year represent almost exclusively only the force actually necessary to operate the roads after they have been completed.

The table on the following page, predicated upon the 90-per-cent. basis, adopted last and continued this year, shows the results, comparing the years 1886, 1887 and 1888.

	1886.		1887.		1888.	
	<i>Average No. of employés.</i>	<i>Aggregate wages paid.</i>	<i>Average No. of employés.</i>	<i>Aggregate wages paid.</i>	<i>Average No. of employés.</i>	<i>Aggregate wages paid.</i>
Manufacture.....	12,177	\$5,435,000	13,988	\$6,679,217	16,977	\$8,012,020 00
Mining.....	6,000	1,920,000	6,000	1,920,000	7,598	2,619,400 00
Transportation.....	15,742	8,718,774	21,653	12,524,899	21,950	12,525,316 90
Totals.....	33,919	\$16,073,774	41,641	\$21,124,116	46,525	\$23,156,736 90

The number of hands employed in the building trades we have no means of estimating, but as work in this line has been very active and multitudes of buildings have been erected, especially in our principal cities, it is safe to assume that these artisans have been able to obtain fairly steady employment, notwithstanding the fact that in the recent immigration this class of workers has been largely represented and the proportion fully maintained. That carpenters, stone-cutters, plasterers and brick and stone masons have been reasonably busy, a glance through our wage-workers' tables will demonstrate, and that the year just ended has been the most prosperous to the Kansas craftsman of any since the organization of the Bureau, our reports will verify. This result is the more gratifying when it is remembered that Kansas has encountered short crops during the period; the activity in towns, in the line of building and municipal improvements, furnishing employment to many whom a crop failure had driven from their claims, and who, failing in this class of work, would have been compelled to either ask for assistance or else have been driven entirely from the State.

As stated on page 97 of this report, our estimate of the capital invested in private industrial establishments is \$37,500,000. If we add 10 per cent. to the \$1,541,530.10, (and this is much under the actual increase since the above figures were made,) we have, invested in coal mining, in round numbers, \$1,700,000, and in the neighborhood of \$1,000,000 in lead and zinc mines, or in all \$2,700,000 invested in mines. Last year we valued the capital invested in railroad shops and round-houses throughout the State at \$6,000,000, and we feel safe in estimating this class of plants on the 90-per-cent. basis, giving us this year \$6,666,666, making the total industrial capital of the State, including mines and mining, in round numbers, \$47,000,000 against \$35,000,000, the estimate of last year as given in our third report (page 318), an increase of \$12,000,000 during the year. This may seem a large increase, but as will be seen by referring to page 97 of this report, each succeeding year the actual returns to this office have exceeded in amount the estimate made by us in the preceding year; and when it is remembered that several large manufacturing plants were established within

the borders of the State during the year covered by this report, and that still more are developing, we feel confident that the next yearly reports to this Bureau will verify our figures.

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